University of Alberta

Giants and Pygmies in the Morning of Time: Developmentalism and Degeneration in English-Canadian Anthropology, ca. 1850-1940

by

Brian William Gobbett ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment
of the
requirements for the degree of Doctor of Philosophy in History

Department of History and Classics

Edmonton, Alberta

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled 'Giants and Pygmies in the Morning of Time': Developmentalism and Degeneration in English-Canadian Anthropology, ca. 1850-1940 submitted by Brian William Gobbett in partial fulfillment of the requirements for the degree of Doctor of Philosophy in History.

Dr. Doug R. Owram

D. Marshall

Dr. David Marshall

Dr. Jane Samson

Dr. I. S. MacLaren

Dr. John Herd Thompson

12 December 2002

David C. Johnson

Dr. David C. Johnson

For my mother and in memory of my father

Abstract

This study constitutes an examination of the intellectual history of English-Canadian anthropology over the first century of its institutional existence beginning with the appointment of Daniel Wilson at the University of Toronto in 1853. Prehistoric relics (in a wide variety of forms) acted as discursive sites upon which various models of human development and degeneration could be advanced. By the last half of the nineteenth century, for instance, the image of 'primitive man' had been well-established as the antithesis to the western 'civilized' ideal. This 'prehistoric relic' could be interpreted in various ways: as an example of the absolute unity of humanity; as a decayed remnant from a previous 'golden age'; as a stagnant representative of a previous stage in the linear advance of humanity; or as an offshoot from a line that otherwise led toward western 'man' and Anglo-Canadian society. In each case, varying models of development or degeneration played a determinate role in the emergence of various (and competing) anthropological theories. By the late Victorian era, as the case studies of David Boyle and Charles Hill-Tout indicate, racial evolution (in its various forms) had emerged as the dominant model for explaining human development. In inventing a 'virtual history' for different racial groups, some groups were predictably assigned a superior status, while others were assigned a lower status from which variation was unlikely. Anthropological theory, however, is never static. In the early twentieth century, separate anthropological traditions emerging in the United States and Britain explicitly challenged long-held beliefs about 'primitive man' and his status in the hierarchy of races. In Canada, Harland I. Smith and Thomas McIlwraith, in particular, represented these two traditions and sought to replace various evolutionary

models of human development with culture-based studies of pre-historic relics and aboriginal peoples. Thus, despite efforts from government and universities, the establishment of a 'Canadian' anthropology remained deeply dependant upon wider currents of intellectual trends within the North Atlantic triangle.

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It is a great pleasure to acknowledge some individuals who have played a formative role in my education. At the University of British Columbia, I was privileged to study under several fine teachers and scholars and, in particular, my appreciation is extended to Ivan Avakumovic, Ken Coates, and R.A.J. Macdonald. At the University of Alberta, Richard Connors, Leslie Cormack, Andrew Gow, Rod Macleod, David Moss and Nicholas Wickenden have modeled scholarship and pedagogy, and shown friendship in appropriate measures. Committee members read this dissertation critically and with care. It is with deep appreciation that I thank I.S. MacLaren, David Marshall, Jane Samson, and John Herd Thompson for their suggestions and support.

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Introduction:
Progress and its Discontent

> Primitive man has lived twice: once in and for himself,
> and the second time for us, in our reconstruction.
> Ernest Gellner[1]

The end of traditional colonialism and the intellectual currents that followed in the 1960s and 1970s forced a reappraisal of the writing of anthropology. Increasingly, it became unacceptable to utilize the nomenclature of a 'primitive' or 'prehistoric' people who upon contact inevitably submitted before the supposed economic, moral, and technological superiority of western 'civilization.'[2] Reflecting these sentiments, a large number of scholars in the social sciences rejected traditional approaches toward non-western and indigenous societies, some going so far as to proclaim the death of anthropology as an area of scholarly discourse. In an often noted paper presented before the World Congress of Sociology in 1966, Peter Worsley argued that anthropology was vitally dependent upon the existence of 'primitive man,' thereby leaving the discipline in an advanced state of crisis.[3] Scholars who adopted such a stance argued that earlier

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[1] Ernest Gellner, *Plough, Sword and Book: The Structure of Human History* (Chicago: The University of Chicago Press, 1988), 23.

[2] George W. Stocking, Jr., 'Rousseau Redux, or Historical Reflections on the Ambivalence of Anthropology to the Idea of Progress,' in *Progress: Fact or Illusion?*, ed. Leo Marx and Bruce Maslish (Ann Arbor: The University of Michigan Press, 1996), 78-79.

[3] Reprinted in Peter Worsley, 'The End of Anthropology,' *Western Canadian*

(continued...)

studies celebrating the widespread 'progress' of some societies and the 'degeneration' of others were mere exercises in myth-making that served to entrench the privileged position of the middle classes, while at the same time rationalizing exploitative notions of hierarchy and colonialism. Some have even argued that notions of progress must be considered illusions and they point to the advance of disease, ecological disaster and widespread human suffering and killing, all of which have reached unprecedented proportions in more recent times.[4] This critique of the notion of the 'progress' of humanity thus had a profound impact on the discipline of anthropology, precisely because so much discourse within anthropology had previously relied heavily upon this construct.

As George Stocking and others note, the notion of a cultural ideology of progress imbedded within an emerging anthropological discourse in the nineteenth century necessarily gave rise to a host of corollary ideas, including a belief in the sociocultural or

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[3] (...continued) *Journal of Anthropology* 1, no. 3 (1970): 1-9.

[4] Bruce Trigger provides a brief survey of some of the major recent attacks on the concept of sociocultural evolution. See Trigger, *Sociocultural Evolution* (Oxford: Blackwell Publishers, 1998), 153-59. For a discussion of the whiggish nature of historical writing in nineteenth-century Canada that often celebrated visions of progress, see Carl Berger, *The Sense of Power: Studies in the Ideas of Canadian Imperialism, 1867-1914* (Toronto: University of Toronto Press, 1970), 109-15; and M. Brook Taylor, *Promoters, Patriots, and Partisans: Historiography in Nineteenth-Century English Canada* (Toronto: University of Toronto Press, 1989).

biological degeneration of humanity.[5] As numerous studies suggest, these concepts were not exclusive of one another and indeed should be considered coeval. As Daniel Pick argues in his excellent *Faces of Degeneration*, the idea of progress 'has indeed proved [to be] a key term in the characterisation of the nineteenth century.' However, in making such a claim, 'it is always a partial and arguable case' and one needs 'to consider what ideological function such a description serves in our own culture and discourse... .' As Pick demonstrates, even an age which celebrated itself as an 'age of improvement' contained 'the multiple voices and plural emphases of degeneration, decadence and disappointment' that demand exploration.[6]

The relatively recent critique of notions of progress (or 'civilization') and degeneration (or 'savagery') should not impede our understanding of the central place that such beliefs held in the formation of the 'prehistoric movement.' Indeed, current debates surrounding the age of the earth and humanity's original state sometimes reveal a profound disjunction between the 'popular mind' and current scholarly opinion. As the historian of science Ron Numbers notes, a 1993 Gallup poll indicated that 47 percent of Americans believed that 'God created *man* pretty much in his present form at one time within the last 10,000 years.'[7] Despite reports that there has not necessarily been a rampant secularization amongst contemporary scientists,[8] there are few trained anthropologists, biologists or other scientists who would see scientific support for the Gallup poll results.[9] This seeming disjunction between the academy and broader American opinion (in this case) perhaps reveals something of the tenuous and contingent nature of the transmission of scientific knowledge. However, there may be other lessons to be gleaned from such polar positions over absolutely foundational issues. Most obviously, even though notions of progress and degeneration have largely been removed from the practice of current academic discourse (much like claims for a young earth), they remain crucial areas of study for the historian of anthropology.[10] As Bruce Mazlish

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[5] Stocking, 'Rousseau Redux,' 68. On the coeval nature of concepts of development and degeneration, see Johannes Fabian, 'Culture, Time and the Object of Anthropology,' in *Time and the Work of Anthropology: Critical Essays, 1971-1991* (Chur, Switzerland: Harwood Academic Publishers, 1991), 191-206; Daniel Pick, *Faces of Degeneration: A European Disorder, c. 1848-c. 1918* (Cambridge: Cambridge University Press, 1996), 11-27; Bruce McPherson, *Between Two Worlds: Victorian Ambivalence About Progress* (Washington, DC: University Press of America, 1983); J.H. Buckley, *The Triumph of Time* (Cambridge: Cambridge University Press, 1966), 13; and David John Fewson, 'Society in Decline: Evolutionary Theory and the Idea of Degeneration in the *Toronto Globe*, 1896-1909,' (unpublished MA thesis, Queen's University, 1998), 1-2.

[6] Pick, *Faces of Degeneration*, 12-14.

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[7] Ronald L. Numbers, *Darwinism Comes to America* (Cambridge: Harvard University Press, 1998), 9. Emphasis mine.

[8] See Edward J. Larson and Larry Witham, 'Scientists Are Still Keeping the Faith,' *Nature* 386 (3 April 1997): 435-36.

[9] As Ron Numbers points out, one of the few notable exceptions is Kurt P. Wise, who did his doctoral work with Stephen Jay Gould at Harvard in the 1990s. See Numbers, *Darwinism Comes to America*, 14.

[10] For studies of creation 'science' which examine its social and intellectual context, see Eileen Barker, 'In the Beginning: The Battle of Creationist Science Against Evolutionism' in *On the Margins of Science: The Social Construction of Rejected Knowledge*, ed. Roy Wallis (Keele: University of Keele Press, 1979), 179-200; and

(continued...)

and Leo Marx argue in their introduction to a recent series of essays, while the 'great Enlightenment project' has waned in recent years, ideas of progress in all their protean forms still demand our attention.[11] Moreover, returning to our original example, the fact that 47 percent of American citizens believe in a recent earth in the face of overwhelming scientific evidence suggests that there are multiple contexts from which individuals draw their conclusions. In the history of anthropology, George Stocking, in particular, has drawn attention to the fact that anthropological ideas often exist within the tension of 'multiple contextualization.'[12] As he notes, by 1851 and the onset of the Great Exhibition, the image of 'savage bestiality' as the antithesis of European civilization was well-established. These images 'existed' in various forms: as degenerative offshoots, as absolute racial alternatives, or as the starting point from which humanity would progress.[13] Only by rejecting a linear intellectual history and emphasizing the particular context in which each of these images was constructed, can

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[10](...continued)
especially Ronald L. Numbers, *The Creationists: The Evolution of Scientific Creationism* (Berkeley: University of California Press, 1992).

[11] Bruce Mazlish and Leo Marx, 'Introduction,' in *Progress: Fact or Illusion?*, ed. Leo Marx and Bruce Mazlish (Ann Arbor: University of Michigan Press, 1996), 1-7.

[12] George Stocking, *Victorian Anthropology* (New York: The Free Press, 1987), xii-xiv; and Pick, *Faces of Degeneration*, 18. Because Stocking's *After Tylor: British Social Anthropology 1888-1951* (Madison: University of Wisconsin Press, 1995) treats a single disciplinary aspect of the history of anthropology over a longer period of time, he retreats slightly from this emphasis on multiple contextualization.

[13] Stocking, 'Rousseau Redux,' 68.

the 'tangled interrelations of ideas and thinkers by made more clear.'[14]

Thus, while some anthropologists in the 1960s (and before in some cases) were rightly concerned about the whiggish ethnography and anthropology that their profession had constructed, historians of anthropology are drawn to the study of such models precisely because of their past dominance.[15] The study of anthropological thought in

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[14] Stocking, *Victorian Anthropology*, 9. For a relevant study in which the idea of progress is wrenched out of its social and intellectual context and inserted into a whiggish narrative that ultimately led to Confederation, see Laurence Fallis, 'The Idea of Progress in the Province of Canada: 1841-1867,' (unpublished Ph.D. dissertation, University of Michigan, 1966); and idem, 'The Idea of Progress in the Province of Canada: A Study in the History of Ideas,' in *The Shield of Achilles: Aspects of Canada in the Victorian Age*, ed. W.L. Morton (Toronto: McClelland & Stewart, 1968), 169-83.

[15] For a survey of some of the most prominent contributions on concepts of progress in prehistoric studies, see Edmund S. Carpenter, 'The Role of Archaeology in the 19th Century Controversy between Developmentalism and Degeneration,' *Pennsylvania Archaeologist* 20, no. 1-2 (1950): 5-18; Idus L. Murphree, 'The Evolutionary Anthropologists: The Progress of Mankind: The Concepts of Progress and Culture in the Thought of John Lubbock, Edward B. Tylor, and Lewis H. Morgan,' *Proceedings of the American Philosophical Society* 105, no. 3 (1961): 265-300; Peter Bowler, *Fossils and Progress: Paleontology and the Idea of Progressive Evolution in the Nineteenth Century* (New York: Science History Publications, 1976); idem, *The Invention of Progress: The Victorians and the Past* (Oxford: Basil Blackwell, 1989); Bruce Trigger, 'Archaeology and the Idea of Progress,' in *Time and Tradition: Essays in Archaeological Interpretation* (Edinburgh: Edinburgh University Press, 1978), 54-74; Stephen K. Sanderson, *Social Evolutionism: A Critical History* (Cambridge, MA: Basil Blackwell, 1990), 30-33; and Stocking, 'Rousseau Redux,' 65-81. In addition to the essay by Carpenter above, prominent studies that examine the role of degeneration in anthropology include James A. Boon, 'Anthropology and Degeneration: Birds, Words, and Orangutans,' in *Degeneration: The Dark Side of Progress*, ed. J. Edward Chamberlin and Sander L. Gilman (New York: Columbia University Press, 1985), 24-48; Pick, *Faces of Degeneration*, especially chapters 5, 7; and Richard Eves, 'Going Troppo: Images of White Savagery, Degeneration and Race in Turn-of-the-Century Colonial Fictions of the Pacific,' *History and Anthropology* 11, no. 2-3 (1999): 351-85.

English Canada has largely ignored this trend, preferring instead to concentrate upon significant individuals and the institutionalization of the discipline on Canadian soil.[16] This dissertation argues that the intellectual architects of the prehistoric movement in English Canada were profoundly dependent upon various models that advocated advance and decline. Indeed, as Bruce Trigger notes, the concept of progress was of crucial importance in the development of nineteenth-century prehistoric studies and, to extend his argument somewhat, far-reaching transformations of anthropological theory can be correlated to shifts in ideas of development and degeneration within both science and society.[17] Such ideational constructs were the principal presuppositions around which the formal study of anthropology orientated itself in the mid-nineteenth century; further, the attachment of anthropologists in British North America and Canada to various (and often contradictory) concepts of development and degeneration located their findings firmly within a larger North Atlantic intellectual milieu that 'recognized' the formative role of such beliefs in the establishment of anthropological discourse. Ultimately when Boasian culturalism and British Social Anthropology redefined the nature of the anthropological enterprise in the first decades of the twentieth century, they were united in their rejection of nineteenth-century models of progress and degeneration.

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[16] Several excellent studies along this vein include Gerald Killan, *David Boyle: From Artisan to Archaeologist* (Toronto: University of Toronto Press, 1983); Douglas Cole, *Franz Boas: The Early Years 1858-1906* (Vancouver: Douglas & McIntyre, 1999); and Regna Darnell, *Edward Sapir: Linguist, Anthropologist, Humanist* (Berkeley: University of California Press, 1990), which obviously goes beyond Sapir's Canadian experience. Several relevant collections that illustrate the emphasis upon individuals and institutions include Elizabeth Hulse, ed., *Thinking with Both Hands: Sir Daniel Wilson in the Old World and the New* (Toronto: University of Toronto Press, 1999); Pamela Jane Smith and Donald Mitchell, ed., *Bringing Back the Past: Historical Perspectives on Canadian Archaeology* (Hull: Canadian Museum of Civilization, 1998); and J. Freedman, ed., *The History of Canadian Anthropology* (Hamilton [?]: Canadian Ethnology Society, 1976). For a notable exception that includes some examination of Canadian anthropology within its much broader parameters, see Bruce G. Trigger, *A History of Archaeological Thought* (Cambridge: Cambridge University Press, 1989).

[17] Trigger, 'Archaeology and the Idea of Progress,' 54.

The belief that some cultures had an inherent or acquired ability to advance (while others did not) played an important role in shaping views about the essential nature of humanity and the essential requirements of a Canadian 'civilization.' Indeed, it would not be too dramatic to argue that Victorian Canadian constructions of 'civilization' were vitally dependant upon interpretations of the prehistoric past. Certainly, Canada's first anthropologists often reflected this viewpoint. In a paper presented before the Canadian Institute in 1890, David Boyle, often labeled Canada's first professional prehistorian, celebrated the utility and importance in studying prehistoric remains:

> to learn the uses of these [prehistoric relics] is to arrive at a knowledge, not only of how the ancient peoples lived, but of how they thought which is of even greater importance, for if we can ascertain this we are on the highway to an understanding of much that it would be extremely interesting to know relative to aboriginal mental development, and consequently valuable as a contribution to the history of our race in its progress from the rudest to the highest and most refined manifestations of humanity.[18]

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[18] David Boyle, 'Archaeological Remains, A Factor in the Study of History [read 3 July 1890].' David Boyle Papers, Library and Archives, Royal Ontario Museum; and idem, 'Primitive Industries and Working Methods,' *Annual Archæological Report,*

(continued...)

As Boyle's comments indicate, the distant and recent past were intimately associated, and the investigation of the prehistoric landscape (in its various forms) would shed light on the trajectory of nineteenth-century Canadian society and beyond.

Glyn Daniel and Colin Renfrew argue that the concept of a professional anthropology emerged in the second half of the nineteenth century as a conscious and separate aspect of the study of humanity's past.[19] When Daniel Wilson's *Archæology and Prehistoric Annals of Scotland* first appeared in 1851, scholarly and popular interest in prehistoric matters in English-speaking circles was limited and research inchoate. For example, at the 1851 Crystal Palace Exhibition at Hyde Park, the first of the so-called world's fairs, no attention was given to displaying exhibits representing prehistoric archaeological remains.[20] Both the changing nature of the fair and the growing interest in prehistory, however, resulted in a much different situation at the Paris Exposition of 1867.[21] In response to repeated requests, Gabriel de Mortillet—a prominent French

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[18](...continued)
1894-95 (Toronto: Warwick Bro's & Rutter, 1896), 29-33.

[19] Glyn Daniel and Colin Renfrew, *The Idea of Prehistory*, 2nd ed. (Edinburgh: Edinburgh University Press, 1988 [1962]), 2.

[20] Daniel and Renfrew, *Idea of Prehistory*, 48. On 29 April 1852, the British Parliament voted to dismantle the Crystal Palace, and over the next two years it was reconstructed in Sydenham in south-west London. See John R. Davis, *The Great Exhibition* (Stroud, Gloucestershire: Sutton Publishing Limited, 1999), 210.

[21] Purely technological fairs began to recede in the 1850s, and by the 1870s fairs gave greater attention to exhibits of natural history, science, agriculture, and educational methods. See Keith Walden, *Becoming Modern in Toronto: The Industrial Exhibition*
(continued...)

geologist and socialist politician—wrote a guide to the prehistoric collections which illustrated the coeval relationship between the rise of prehistory and an ideology of progress by concluding that the study of such samples illustrated the general evolutionary principles of '*loi du progrès de l'humanité, loi du développement similaire, ... [et l'] haute antiquité de l'homme.*'[22] Significantly, these prehistoric relics were interpreted within the context of late nineteenth-century Parisian and western society, and thus constituted a form of virtual witnessing: that is, when viewed 'properly' they illustrated the path of development that led to the self-referential standard established by western 'man.'[23]

Ernest Gellner's contention that there are 'two lives' to prehistoric 'man' suggests that much of the interpretation of prehistory is ultimately a constructed reality and necessarily incomplete. Indeed, while nineteenth-century explorations into 'prehistoric man' helped to establish the subject as a discipline, the results of their investigations often proved to be fragmentary or even illusory; they were not, however, insignificant. Instead, such explorations reveal much about the nature of English-

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[21](...continued)
and the Shaping of a Late Victorian Culture (Toronto: University of Toronto Press, 1997), 12.

[22] Cited in Daniel and Renfrew, *Idea of Prehistory*, 48. Mortillet capitalized these concluding words in *'Promenades préhistoriques à l'exposition universelle,' Matériaux pour l'histoire positive et philosophique de l'homme* 3 (1867): 181-368.

[23] For a brief yet penetrating discussion of the concept of virtual witnessing, see Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton: Princeton University Press, 1985), 60-65.

Canadian science and society. The coeval relationship between notions of development and degeneration in the prehistoric past was inextricably bound up with nineteenth- and twentieth-century beliefs concerning theories of origins, the antiquity of humanity, and the respective roles of environment and race in the 'trajectory' of both prehistoric and contemporary societies. The construction of various models of development and degeneration often had precise intellectual heritages. The first two chapters of this study explore the construction of visions of development founded upon Enlightenment ideals. The arguments advanced by Daniel Wilson and Horatio Hale, the principal architects of Enlightenment constructs of progress in Victorian Canada, were ultimately subsumed by a Victorian synthesis in which racial typology played a dominant role. In a much different vein, the multiple contexts in which competing anthropological ideas emerge is illustrated by J.W. Dawson, whose idealist vision of natural theology demanded the reconciliation of science and scripture. Locating his vision of natural theology within both the inorganic and organic worlds, Dawson argued that while progress and development in nature were continuous, they were not inevitable; instead, both the smallest and grandest organic structures appeared suddenly and fully-formed and degeneration inevitably ensued. The central chapters of this study examine the emergence of racial models of development beginning in the last half of the nineteenth century. The rise to dominance of western 'man' was perceived to have taken place in very different developmental models (depending on who was doing the 'viewing'). Looking both toward and beyond Darwin, racial evolutionists constructed models of human development that led teleologically toward the supremacy of some human groups, and explained the marginalization of others. Finally, while the 'Americanist tradition' and British social anthropology are often construed in opposition to one another, they exhibited some common traits in their critique of the practice and theory of evolutionary anthropology. The construction of various models of the prehistoric past was not, however, an isolated intellectual endeavour: for instance, anthropological concepts were married by some academics to the horrific legacy of the Great War in order to challenge linear notions of sociocultural evolution.[24] Likewise, post-Great War notions that culture was diachronically orientated rather than inherently established by race were stimulated by the tragic events of World War II. While notions of 'progress' and 'race' were hardly vitiated by the mid-twentieth century, it is noteworthy that it took the conflux of event and theory to present a challenge to two of the dominant characteristics of formal anthropology in its first century of development in English Canada.

In 1975 Michael Ames and Richard Preston noted the common perception that 'Canada does not exist in the history of anthropology except as a hunting ground for anthropologists.' This perception 'is myth, perpetuated by the fact that we have neglected to write our own history.'[25] While significant studies have emerged in the meantime, it still remains true that the history of anthropology in Canada, like the history of science more generally, remains largely unexplored and its place in the formation of Canadian society has not been fully assessed.[26]

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[24] For a recent attempt to place anthropological thought and practice within a broader political and cultural context, see Thomas C. Patterson, *A Social History of Anthropology in the United States* (Oxford: Berg, 2001).

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[25] Michael Ames and Richard Preston, 'Introduction [to a colloquium on the History of Anthropology in Canada],' *Canadian Review of Sociology and Anthropology* 12, no. 3 (1975): 243.

[26] Suzanne Zeller makes this point with regard to the history of science in her seminal *Inventing Canada: Early Victorian Science and the Idea of a Transcontinental Nation* (Toronto: University of Toronto Press, 1987), vi.

~ 1 ~

In Search of Atlantis: Enlightenment Evolution and the Birth of the Prehistoric Movement

... the true GOLDEN AGE OF MAN lies before him, not behind.
Daniel Wilson[1]

In the course of emigrating from Switzerland to the United States in 1846, Louis Agassiz encountered a black person for the first time while residing at a Philadelphia hotel. Writing to his mother, the famous naturalist recorded his visceral reaction:

> It was in Philadelphia that I first found myself in prolonged contact with negroes; all the domestics in my hotel were men of color. I can scarcely express to you the painful impression that I received, especially since the feeling that they inspired in me is contrary to all our ideas about the confraternity of the human type and the unique origin of our species. But truth before all. Nevertheless, it is impossible for me to reprocess the feeling that they are not of the same blood as us.[2]

This experience was clearly compelling, for while Agassiz had not been a polygenist in Europe he soon became one of the leading supporters of the theory of multiple origins in mid-nineteenth century America. Within just a few years, Daniel Wilson undertook a similar trans-Atlantic journey, leaving his native Edinburgh to take up a position at Victoria College in Toronto. Like Agassiz, Wilson disembarked at Philadelphia in September, 1853, where he 'had the pleasing surprise of finding myself not unknown here. My "archaeology" is in the public libraries here, and so I have had doctors and professors calling and leaving their cards for me at the hotel [the Jones Hotel] where I stay ... .'[3] Not all aspects of his Philadelphia stay were as rewarding, however. Writing in his journal Wilson sadly noted, 'I grieve to find that Ethnology is here made to subserve the vulgarest [sic] prejudices, and the idea that the black man is sprung from the same stock as the white is counted as ridiculous.'[4]

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[1] Daniel Wilson, *The Archæology and Prehistoric Annals of Scotland*, 2nd ed., 2 vols. (London: MacMillan and Co., 1863 [1851]), II:529. Emphasis in the original.

[2] Cited in Stephen Jay Gould, *The Mismeasure of Man*, rev. ed. (New York: W.W. Norton & Company, 1996 [1981]), 76-77. As Gould notes, this passage was expunged from the standard *Life and Letters*, edited by Agassiz's wife.

As the Philadelphia experiences of Agassiz and Wilson vividly illustrate, speculations on the fundamental condition of humanity were never far from the surface of nineteenth-century science, even when the discipline directed its focus toward the distant past. Although he objected to ethnology being made servant to the 'vulgarest prejudices' of humanity, Wilson's anthropology nevertheless reflected an internal antinomy in which the limits of race and environment were never precisely enforced. Emerging out of an Enlightenment tradition that had already dealt decisively with Lord Kames' belief in specially created races, Daniel Wilson was deeply committed to the unity of humanity.[5] His 'whig ethnology' embraced Enlightenment principles of humanity and constructed a progressivist and episodic model of human history that paid heed to environmental factors in determining the course of 'civilization.'[6] However, Wilson's commitment to environmental factors was not absolute, and tensions between race and environment were particularly evident in his discussions of human crania and hybridity, perhaps his most significant anthropological contributions. That Wilson's anthropological work was ultimately excluded from the evolutionary canon[7] is perhaps a measure of the need of late Victorian society for more defined racial explanations of human development.

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[3] Daniel Wilson, 'Daniel Wilson Journal [typescript],' 13 September 1853. John Langton Family Papers, University of Toronto Archives. A typed (and heavily edited) transcript of Wilson's journal was deposited in the University of Toronto Library by H.H. Langton on 5 October 1927. This transcript omits much reference to Wilson's private life, and contains no entries between 1854 and 1873. The original document was probably destroyed. See Hulse, ed., *Thinking with Both Hands*, 292-93.

[4] Daniel Wilson, 'Daniel Wilson Journal [typescript],' 10 September 1853. John Langton Family Papers, University of Toronto Archives.

Daniel Wilson and Enlightenment Evolution

Born in 1816 at the base of Calton Hill on the edge of Edinburgh's New Town, Daniel Wilson was, as one biographer argues, very much a child of both his city and time.[8] Edinburgh in the late eighteenth and early nineteenth centuries was a city of prodigious intellectual ferment, and in both his informal and formal education Wilson was exposed to a variety of powerful intellectual influences. Following a brief career as an illustrator and book reviewer in both Edinburgh and London, Wilson informally embarked upon a career as an antiquarian and a prehistorian that would eventually take him to Toronto. The publication of *Memorials of Edinburgh in the Olden Time* (1848) and *The Archæology and Prehistoric Annals of Scotland* (1851), after which Wilson received a doctorate *honoris causa* from St. Andrews, both reflected and made an important contribution to the Romantic and antiquarian sensibilities that had been seminal in his intellectual development. More importantly, Edinburgh was alive with both Enlightenment and radical principles through the work of Adam Ferguson, William Robertson and others, particularly among middle-class, reform-minded individuals. Wilson's access to the latter tradition was perhaps best encapsulated in his friendship with Robert Chambers, whose *Vestiges of the Natural History of Creation* (1844), advocated a system of radical progressivism in which the development of organic creation proceeded according to natural laws.[9] The impact of Chambers must have been profound: well after his move to Toronto, Wilson fondly recalled evening Edinburgh

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[5] Paul B. Wood, 'The Science of Man,' in *Cultures of Natural History*, ed. N. Jardine, J.A. Secord, and E.C. Spary (Cambridge: Cambridge University Press, 1996), 204.

[6] Thomas R. Trautmann proposes the evocative term 'whig ethnology' to describe the 'progressive' interpretation of anthropological evidence. See Trautmann, 'Whig Ethnology From Locke to Morgan,' *Journal of the Anthropological Society of Oxford* 23, no. 1 (1992): 201-18.

[7] Stocking, *Victorian Anthropology*, 179.

[8] Marinell Ash, 'Daniel Wilson: The Early Years,' in *Thinking With Both Hands:*
(continued...)

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[8](...continued)
Sir Daniel Wilson in the Old World and the New, ed. Elizabeth Hulse (Toronto: University of Toronto Press, 1998), 3.

[9] This work was initially published anonymously. For a landmark study on *Vestiges*, see James Secord, *Victorian Sensation: The Extraordinary Publication, Reception and Secret Authorship of Vestiges of the Natural History of Creation* (Chicago: University of Chicago Press, 2000).

walks with Chambers, all while listening to 'glimpses of Lamarckian and Darwinian views, now very familiar to all.' [10]

Lacking a formal academic degree and reluctant to take the requisite oath for university employment in Scotland, Wilson applied for and was appointed to the chair of History and English literature at University College, Toronto, in 1853. Despite his failure to land an academic position in Scotland, Wilson had already established himself as a principal figure in the study of prehistory with the publication of the *Prehistoric Annals* and, within a few years of his arrival at Toronto, was teaching a course entitled 'Ancient and Modern Ethnology,' perhaps the first regular offering in an anthropological discipline in an English-speaking university and possibly in the world.[11] Wilson's arrival

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[10] Cited in Marinell Ash, 'Old Books, Old Castles, and Old Friends: The Making of Daniel Wilson's *Archæology and Prehistoric Annals of Scotland*,' in *Thinking With Both Hands: Sir Daniel Wilson in the Old World and the New*, ed. Elizabeth Hulse (Toronto: University of Toronto Press, 1998), 74. This paragraph draws from several sources. For biographical information on Wilson, see Carl Berger, 'Wilson, Sir Daniel,' *Dictionary of Canadian Biography* (Toronto: University of Toronto Press, 1990), vol. 12:1109-1114; Alice B. Kehoe, 'The Invention of Prehistory,' *Current Anthropology* 32, no. 4 (1991): 467-76; B.E. McCardle, 'The Life and Anthropological Works of Daniel Wilson, (1816-1892),' (unpublished M.A. thesis, University of Toronto, 1980); Bruce Trigger, 'Daniel Wilson and the Scottish Enlightenment,' *Proceedings of the Scottish Antiquarian Society* 122 (1992): 55-75; and idem, 'Sir Daniel Wilson: Canada's First Anthropologist,' *Anthropologica* 8, no. 1 (1966): 3-28; and the various essays in Elizabeth Hulse, ed. *Thinking with Both Hands*. Wilson's career as a university administrator is covered in H.H. Langton, *Sir Daniel Wilson: a Memoir* (Toronto: Thomas Nelson & Sons, 1929).

[11] McCardle, 'Life and Anthropological Works of Daniel Wilson,' 22; Michael Levin, Gail Avrith and Wanda Barrett, *An Historical Sketch Showing the Contribution of Sir Daniel Wilson and Many Others to the Teaching of Anthropology at the*

(continued...)

coincided with the development of English-Canadian organizations dedicated to the study of the prehistoric past.[12] While the Natural History Society had been founded in Montreal in 1827, it only began to function actively in the 1850s with the arrival of J.W. Dawson who came as president of McGill. When Dawson arrived in 1855 McGill had but a single fossil, but by 1862 he had collected some 10,000 natural history specimens.[13] Similar societies were also established in other parts of British North America: in 1849 the Canadian Institute was founded in Toronto, followed by the formation of the Natural History Society of New Brunswick and the Nova Scotian Institute of Natural Science in 1862.[14] By the 1890s David Boyle boasted that the Canadian Institute had succeeded in

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[11](...continued)
University of Toronto (Toronto: Department of Anthropology, 1984), 1-3; and Trigger, 'Daniel Wilson and the Scottish Enlightenment,' 57.

[12] Bruce Trigger argues that prior to the 1850s anthropological and archaeological findings went unreported primarily because there was no adequate forum in which to publish and discuss them. See B.G. Trigger, 'Giants and Pygmies: the Professionalization of Canadian Archaeology,' in *Towards a History of Archaeology*, ed. Glyn Daniel (London: Thames and Hudson, 1981), 81. For an example that tends to confirm this view, see Edward Van Courtland, 'Notice of an Indian Burying Ground,' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 1, no. 7 (1853): 161.

[13] Susan Sheets-Pyenson, *John William Dawson: Faith, Hope, and Science* (Montreal & Kingston: McGill-Queen's University Press, 1996), 65-66.

[14] On the origins and establishment of scientific organizations in nineteenth-century Canada and the study of prehistoric matters see Gail Avrith, 'Science at the Margins: The British Association and the Foundations of Canadian Anthropology, 1884-1910,' (unpublished Ph.D. dissertation, University of Pennsylvania, 1986); Gail Avrith-Wakeam, 'George Dawson, Franz Boas and the Origins of Professional Anthropology in Canada,'*Scientia Canadensis* 17, no.1&2 (1994): 185-203; Diamond Jenness, 'Fifty
(continued...)

bringing together the largest collection in the world of prehistoric relics.[15] By the time he died in 1911, it was estimated that this collection held some 32,000 artefacts.[16] Further, the development of scientific societies coincided with a more aggressive age of railway building and similar ventures, some of which would unearth ancient relics which could be utilized by scientific societies and, when viewed 'properly,' illustrated the sequences through which the material development of 'man' had progressed. Daniel Wilson, in his first article in the *Canadian Journal*, noted that the 'progress' of clearing land and building railways brought with it ready opportunities for scientific study, and he urged members to appropriate any findings for the museum of the Canadian Institute.[17]

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[14](...continued) Years of Archaeology in Canada,' in *The Royal Society of Canada: Fifty Years Retrospect. Anniversary Volume, 1882-1932* (Toronto: The Ryerson Press, ca. 1932), 71-76; Douglas Cole, 'The Origins of Canadian Anthropology, 1850-1910,' *Journal of Canadian Studies* 8, no. 1 (1973): 33-45; Freedman, ed. *The History of Canadian Anthropology*; Jane H. Kelley and Ronald F. Williamson, 'The Positioning of Archaeology Within Anthropology: A Canadian Historical Perspective,' *American Antiquity* 61, no. 1 (1996): 5-20; Gerald Killan, 'The Canadian Institute and the Origins of the Ontario Archaeological Tradition, 1851-1884,' *Ontario Archaeology* 34 (1980): 3-16; T.F. McIlwraith, 'The Progress of Anthropology in Canada,' *Canadian Historical Review* 11, no. 2 (1930): 132-50; Smith and Mitchell, ed., *Bringing Back The Past: Historical Perspectives on Canadian Archaeology*; and Trigger, 'Giants and Pygmies,' 69-84. In 1887 David Boyle began to edit the *Annual Archæological Report for Ontario* (1887-1926), the first Canadian journal devoted to the discipline.

[15] Boyle, 'Archaeological Remains, A Factor in the Study of History,' 71.

[16] Trigger, 'Daniel Wilson and the Scottish Enlightenment,' 65.

[17] Daniel Wilson, 'Hints for the Formation of a Canadian Collection of Ancient Crania,' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 3, no. 15 (1855): 346; idem, 'Discovery of (continued...)

There evidently was some modest success in achieving this goal because Frederick Starr, the first anthropologist at the University of Chicago, later noted that the archaeological collection at the Institute was 'surprisingly rich and interesting.'[18]

The publication of Wilson's seminal study *Prehistoric Man: Researches into the Origin of Civilisation in the Old and New World* in 1862 reflected the increased scientific vigour of the study of prehistory and summarized much of the research that had been conducted to that point. As Alice Beck Kehoe notes, *Prehistoric Man* sold quickly: mailed to Macmillan in London in January 1861, it was in print by October 1862 and had sold out by the following March. This spurred a second edition, which came out in 1865, followed by a much revised third edition in 1876. The third edition, as Wilson explained to Lewis Henry Morgan, was re-written to a 'considerable extent' and comprised the fullest expression of his prehistoric researches.[19] Although lacking his mature discussion of ancient matters, the initial volumes introduced the word 'prehistoric' into anthropological nomenclature, and spurred the London publisher Williams and Norgate to commission Sir John Lubbock's *Pre-historic Times, As*

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[17](...continued)
Indian Remains, County Norfolk, Canada West,' *The Canadian Journal of Science, Literature and History* 1, no. 6 (1856): 511-519; idem, 'Pre-Aryan American Man,' in *The Lost Atlantis and Other Ethnographic Studies* (New York: Macmillan and Co., 1892), 167; and Van Courtland, 'Notice of an Indian Burying Ground,' 161.

[18] Frederick Starr, 'Anthropological Work in America,' *The Popular Science Monthly* 41 (July 1892): 307.

[19] Daniel Wilson to L.H. Morgan, 5 August 1876. L.H. Morgan Collection, Rush Rhees Library, University of Rochester.

Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages (1865), a volume that went through seven editions in both England and the United States by 1913 and served as a standard late Victorian 'prehistoric' textbook.[20] In spite of Lubbock's success, Wilson still enjoyed a modest international reputation, and even as late as the 1890s Frederick Starr somewhat optimistically noted the importance of Wilson's contributions, calling both *Prehistoric Annals* and *Prehistoric Man* 'training-books for the present generation of scholars.'[21]

While Wilson's intellectual interests were eclectic, his formative influences lay in the moral and natural philosophy of eighteenth-century Scotland.[22] The Scottish Enlightenment had been central in stimulating inquiry into human nature, particularly in light of the discovery of 'savages' in the New World. As Robert Wokler notes, it was only in the late seventeenth century that Europeans came to believe that primitive peoples could shed light on the early history of humanity, and it was well into the next century before they began to integrate the study of human nature and empirical investigations of 'primitives' into a disciplinary study. The very origins of modern anthropology, he provocatively argues, lay in the eighteenth-century theorists and not in the social evolutionists of a century later.[23]

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[20] Alice Beck Kehoe, *The Land of Prehistory: A Critical History of American Archaeology* (New York: Routledge, 1998), 19-20; and idem, 'The Invention of Prehistory,' *Current Anthropology* 32, no. 4 (1991): 467-76. There is some debate about who first used the term 'prehistoric' to identify the ancient human past. C. Chippindale maintains that Daniel Wilson coined the word, while Norman Clermont and Philip Smith argue that the now-forgotten Gustave d'Eichthal introduced '*préhistorique*' in 1843. Wilson, at least, seems to have been seminal in popularizing the term in English-speaking countries. See C. Chippindale, 'Invention of the Words for the Idea of Prehistory,' *Proceedings of the Prehistoric Society* 54 (1988): 304-14; and Norman Clermont and Philip E.L. Smith, 'Prehistoric, Prehistory, Prehistorian ... Who Invented the Terms?,' *Antiquity* 64, no. 242 (1990): 97-102.

[21] Starr, 'Anthropological Work in America,' 370. On the formation of the Department of Anthropology at Chicago, see Regna Darnell, *And Along Came Boas: Continuity and Revolution in Americanist Anthropology* (Amsterdam: John Benjamins Publishing Company, 1999), 110-14.

[22] Marinell Ash, 'Old Books, Old Castles, and Old Friends: The Making of Daniel Wilson's *Archæology and Prehistoric Annals of Scotland*,' in *Thinking With Both Hands: Sir Daniel Wilson in the Old World and the New*, ed. Elizabeth Hulse (Toronto: University of Toronto Press, 1999), 60-80.

Wilson's alliance with eighteenth-century Scottish theorists can be clearly seen in the debt that his anthropological thought had to Scottish Common Sense philosophy. The first decades of the nineteenth century saw a revival of the study of Francis Bacon and the application of his work to the philosophy of science. Richard Yeo argues that in the nineteenth century, British scholars made Bacon's writings on science the object of serious study, a development that had significant consequences in the nature and application of scientific theory.[24] The study of Bacon was grafted onto Scottish

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[23] Robert Wokler, 'Anthropology and Conjectural History in the Enlightenment,' in *Inventing Human Science: Eighteenth-Century Domains*, ed. Christopher Fox, Roy Porter and Robert Wokler (Berkeley: University of California Press, 1995), 30-31.

[24] Richard Yeo, 'An Idol of the Market-Place: Baconianism in Nineteenth Century Britain,' *History of Science* 23 (1985): 251-98. Also see J. Charles Robertson, 'A Bacon-facing Generation: Scottish Philosophy in the Early Nineteenth Century,' *Journal of the History of Philosophy* 14, no. 1 (1976): 35-45; Mark Noll, 'Common Sense Traditions and American Evangelical Thought,' *American Quarterly* 37, no. 2 (1985): 222-25; and A.B. McKillop, *A Disciplined Intelligence: Critical Inquiry and Canadian Thought in the Victorian Era* (Montreal: McGill-Queen's University Press, 1979), chapter 2.

Common Sense with ease: both Thomas Reid and Dugald Steward affirmed Bacon's foundational role in the establishment of modern science.[25] However, a commitment to Scottish Common Sense did not necessarily involve intimate discussions on the nuances of Reid or Steward. Instead, methodological Common Sense—that aspect of the Scottish programme that exalted Bacon—eschewed rash speculation in favour of an inductive approach that emphasized the careful collection of facts prior to the formation of any hypothesis.[26] Just as it conditioned Wilson's response to Darwin,[27] methodological Common Sense influenced his prehistoric studies, particularly when he was confronted by what he perceived as challenges to the established method. In his review of J.C. Nott and George Gliddon's *Indigenous Races of the Earth*, an infamous work that advanced the so-called 'diversity view,' Wilson denounced their conclusions as speculative and in violation of the Baconian programme: 'the great majority of Ethnologists must deplore with us, the pre-mature dragging into the arena of theological controversy of a science which is still in its mere infancy; has its data to accumulate, its first principles to determine, and even a commonly recognized nomenclature and termonology [sic] to agree upon... .'[28] Similarly, standing before the American Association for the Advancement of Science as chair of the subsection of Anthropology in 1877, Wilson discussed the role of anthropology in light of 'the great revolution in biological science ... [and] the recognition of a continuity of succession of forms of life, as based on the hypothesis of evolution... .'[29] In an implicit challenge to Darwinian methodology, Wilson cautiously maintained that 'we want facts rather than theories.' When those facts were gathered and viewed properly, the study of the prehistoric past then became 'an ingenious process of induction' which would ultimately reveal the social habits, culture and intellectual and moral characteristics of those who had 'passed away long before the very dawn of history.'[30]

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[25] Yeo, 'Idol of the Market-Place,' 260; Stefan Collini, Donald Winch and John Burrow, *That Noble Science of Politics: A Study in 19th Century Intellectual History* (Cambridge: Cambridge University Press, 1983), chapter 1; and Theodore Dwight Bozeman, *Protestants in an Age of Science: The Baconian Ideal and Antebellum American Thought* (Chapel Hill: University of North Carolina Press, 1977), chapters 1 and 8.

[26] Noll, 'Common Sense Traditions,' 222-23.

[27] See McKillop, *A Disciplined Intelligence*, 99-110.

In addition to his intellectual commitment to Scottish Common Sense, in both the *Prehistoric Annals* and *Prehistoric Man* Wilson drew heavily on the work of Scandinavian archaeologists. Inspired by a growing sense of nationalism, the newly formed National Museum in Denmark appointed Christian Jürgensen Thomsen as its first curator in 1816. Faced with the problem of cataloging and organizing one of the largest collections in Europe, Thomsen developed an hypothesis that sorted prehistoric material into three successive periods: the Stone, Bronze, and Iron Ages.[31] The publication of the *Ledetraad til Nordisk Oldkyndighed* (Guide Book to Scandinavian Antiquity) in 1836 outlined Thomsen's evolutionary interpretation of prehistory and set forth a 'virtual history' that arranged the material evidence purposefully in order to 'prove' the development of humanity.[32] Thomsen's categorization of the progress of human technological and industrial development remained, of course, speculative. It remained to others—particularly Thomsen's associate, Jens J. A. Worsaae and the biologist Japetus Steenstrup—to carry out the field work necessary to substantiate the Three-Age hypothesis and to confirm the material progress of Scandinavia from prehistoric times to the present. The prodigious amount of research and scholarship produced by Worsaae and Steenstrup ultimately provided stratigraphic evidence for Thomsen's classificatory system, and helped to convince other prehistorians that such an approach could be applied throughout Europe.[33]

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[28] D.W. [Daniel Wilson], review of *Indigenous Races of the Earth...*, by J.C. Nott and George R. Gliddon, *The Canadian Journal of Science, Literature and History* 2, no. 9 (1857): 209.

[29] Daniel Wilson, 'An Address before the American Association for the Advancement of Science,' *Proceedings of the American Association for the Advancement of Science* 26 (1877): 321.

[30] Wilson, 'An Address before the American Association for the Advancement of Science,' 331 and 320.

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[31] Trigger, *A History of Archaeological Thought*, 114; and Stocking, *Victorian Anthropology*, 158. My discussion on the origins and development of the Three-Age system of classification draws on Glyn Daniel, *The Three Ages: An Essay on Archaeological Method* (Cambridge: Cambridge University Press, 1943); Robert F. Heizer, 'The Background of Thomsen's Three-Age System,' *Technology and Culture* 3 (1962):259-66; Ole Klindt-Jensen, *A History of Scandinavian Archaeology* (London: Thames and Hudson, 1975), chapters 4-5; Judith Rodden, 'The Development of the Three Age System: Archaeology's First Paradigm,' *Towards a History of Archaeology*, ed. Glyn Daniel (London: Thames and Hudson, 1981): 51-68; Trigger, *A History of Archaeological Thought*, 73-86; and Bo Gräslund, *The Birth of Prehistoric Chronology: Dating Methods and Dating Systems in Nineteenth-Century Scandinavian Archaeology* (Cambridge: Cambridge University Press, 1987), chapter 4.

[32] As scholars have pointed out, there was no inherent contradiction for nineteenth-century prehistorians between evolutionary thought and a diffusionist model. Thomsen was a diffusionist who argued that knowledge of bronze and iron metallurgy was brought into the region by immigrants. The effect of such immigration was technological evolution and progress. See Glyn Daniel, *The Origins and Growth of Archaeology* (Harmondsworth: Penguin, 1967), 103; and Trigger, *A History of Archaeological Thought*, 78-79.

The publication of the English translation of *Ledetraad* in 1848 and Worsaae's visit to Britain and Ireland in 1846-47 provided the impetus and essential structure for Wilson's explorations into prehistory.[34] Wilson reacted against the antiquarian spirit and its excessive devotion to the classical age, and sought to construct a new system by which prehistoric material might be interpreted.[35] Residents of the Stone Age, Wilson argued, were near the lowest stage to which intelligent beings could sink, slaves to superstition, and capable only of sufficient inventive ingenuity to distinguish them from beasts.[36] Thereafter—applying Thomsen's classificatory theory to Scottish prehistory—advances in culture progressed from the Stone Age to the Bronze, Iron, and, in conflating moral development with technological, the Christian ages. Of course, the various stages of technological evolution were not independent from one another and elements of one age were often present in a subsequent era. As evidence of this, Wilson speculated that Stonehenge did not belong to the Stone or Bronze ages, but rather was the work of the Iron.[37] The general trend of one age to another was, however, upward, and Wilson hypothesized that the moral and social progress present in the Christian era was concomitant with the technological progress that had preceded it and remained in evidence.[38] The advent of the iron age, for example, served the dual purpose of tracing the technological progress that had preceded it, as well as marking the termination of the long Pagan era and the onset of a new era of moral and spiritual development.[39]

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[33] Trigger, *A History of Archaeological Thought*, 80-82.

[34] Trigger, 'Daniel Wilson and the Scottish Enlightenment,' 60-63. Worsaae and Wilson did not meet during the former's visit to Scotland. While Worsaae was nevertheless an important influence on Wilson, work on the *Prehistoric Annals* had already commenced. See Ash, 'Old Books, Old Castles, and Old Friends,' 71.

[35] Wilson, *Prehistoric Annals*, I: xvii-xviii; II: 524-25. For a brief introduction to the *Prehistoric Annals*, see W. Douglas Simpson, 'Sir Daniel Wilson and the *Prehistoric Annals of Scotland*: A Centenary Study,' *Proceedings of the Society of Antiquaries of Scotland* 96 (1963):1-8.

[36] Wilson, *Prehistoric Annals*, I: 40.

Wilson's *Prehistoric Man* continued the classificatory structure of his earlier study. While *Prehistoric Man* was not explicitly organized around the four-age theory to the same extent as the *Prehistoric Annals*, Wilson clearly embraced a form of parallel evolution: that is, a unilinear view of sociocultural evolution by which all societies could achieve higher levels of 'civilization' by passing through universal and uniform lower stages.[40] The evolution of societies was viewed therefore as a ladder, or a series of ladders, that led upward in a similar direction.[41] However, within this general paradigm Wilson employed an episodic notion of progress that allowed for and expected both the ascension and decline of cultures. This pattern was established, for example, when the Bronze and Iron cultures came into contact; when this clash of cultures occurred, because the ages were 'separated by too wide a gulf ... to claim any equality in the rights of civilisation,' the inevitable result was the rapid degeneration of the 'less advanced' society.[42] More often, however, Wilson traced the technological development of early societies through the first stages of 'civilization.' To Wilson and others, the discovery of stone axes and flint spear heads along side the bones of the mastodon and other fossil animals confirmed a pattern of chronological development that had already been well established in Europe.[43] After examinations of early uses of fire and stone and bone tools, Wilson devoted individual chapters to technological developments such as the canoe, metal weapons and tools, and 'advances' in architecture, art, pottery and the letters. Significantly, Wilson's exploration of such matters illustrated a lack of concern with the individual cultural context of such developments, preferring instead to chronicle universal progress through the development of material culture.[44]

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[37] Wilson, *Prehistoric Annals*, I: 9.

[38] Trigger, *A History of Archaeological Thought*, 85.

[39] Wilson, *Prehistoric Annals*, I: 165, 167.

[40] Trigger, *Sociocultural Evolution*, 76. Trigger makes this point in regard to the work of Henry Lewis Morgan, the American lawyer who constructed perhaps the most elaborate unilinear developmental scheme through which cultures progressed. Also see Bowler, *The Invention of Progress*, 83.

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[41] Trigger, *Sociocultural Evolution*, 77. The exception to this paradigm was in the area of philology, where Max Müller in *Lectures on the Science of Language* (1861) argued that languages emerged in a fashion more like a branching tree than a ladder. See Bowler, *The Invention of Progress*, 68; Trigger, *Sociocultural Evolution*, 77; and below, 'The "Progress" of Language: Horatio Hale and the Limits of Enlightenment Evolution.'

[42] Wilson, *Prehistoric Man*, I: 197.

[43] Wilson, *Prehistoric Man*, I: 56. The discovery to which Wilson is referring is that by the Geological Survey of Illinois in 1866. Two superb studies that examine the nineteenth-century debate over human antiquity include Donald K. Grayson, *The Establishment of Human Antiquity* (New York: Academic Press, 1983); and A. Bowdoin Van Riper, *Men Among the Mammoths: Victorian Science and the Discovery of Human Prehistory* (Chicago: University of Chicago Press, 1993).

While Wilson believed that all races possessed the capacity for progress, the aboriginal population of North America had only partially advanced up to the time of contact with Europeans, and had failed to progress thereafter.[45] While it was commonly believed that nineteenth-century Natives had reached a level of 'civilization' below the self-referential standard established by Anglo-American society, Wilson nevertheless saw much to admire in contemporary indigenous populations, particularly their energy and artistic skills in general, and the military organization of the Iroquois in particular.[46] In contrast to prominent American polygenesists such as Dr. J.C. Nott, George R. Gliddon, Samuel Morton and the Swiss-American naturalist Louis Agassiz, Wilson did not feel it necessary 'to degrade [primitive] man from that majestic genesis of our race.'[47] Instead, Wilson advanced an analogy that found consistent resonance in Victorian Canada: Natives in the so-called New World occupied the first transitional era—the stone period—and thus offered a representative sample of what prehistoric humanity was like in the distant European past.[48] In a very real sense, therefore, such an argument utilized geography as a replacement for history: as Roy Porter argues, the 'beyond' now became another way of expressing 'before.'[49] Seeing indigenous peoples as primitive ancestors thus served a double ideological purpose: aboriginal history ended with Columbus and the history of the 'New World' was effectively conflated with the European whig narrative. It is not surprising that with the intrusion of Europe into America, the progress of Native peoples through the four-stages toward the 'Christian era' was abruptly halted. Furthermore, aboriginal people supposedly showed little capacity to embrace elements of 'civilization' even with the example of Europeans before them; Wilson lamented, for example, that Natives had failed to learn the basic principles of metallurgy even after three and a half centuries of the post-contact experience.[50] Perhaps anticipating a challenge to humanity's universal capacity to progress, he noted that it was curious that 'the Stone-Period of a people still in the most primitive stage of barbarism has been superseded by the use of metals obtained solely by barter, and without any advance either in the knowledge of metallurgy, or in the mastery of the arts which lie at the foundation of all civilization.'[51] Like virtually all Euro-Canadian observers, Wilson concluded that just as the expansion of colonial settlement involved the extirpation of wild animals and forests, so it would also inevitably lead to the disappearance (or absorption in his particular paradigm) of the North American Native.[52]

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[44] B.G. Trigger, "Major Concepts of Archaeology in Historical Perspective," *Man* 3, no. 4 (1968): 529.

[45] Wilson, *Prehistoric Man*, I: 1, 12.

[46] Wilson, *Prehistoric Man*, I: 189-91.

[47] Wilson, *Prehistoric Man*, I: 34. For a discussion of polygenesis and prominent advocates such as Nott, Morton, and Agassiz, see Bieder, *Science Encounters the Indian*, chapter 3; Gould, *The Mismeasure of Man*, chapter 2; and Bowler, *The Invention of Progress*, chapter 4, *passim.*

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[48] Wilson, *Prehistoric Man*, I: 173, 196. For a sampling of this argument from often very diverse ideological perspectives, see Arthur Harvey, 'Bone Caves—With Especial Reference to Pre-Historic Man,' *Transactions of the Canadian Institute* 2 (1890-91), 116-20; G.F. Matthew, 'Discoveries at a Village of the Stone Age at Bocabec, NB,' *Bulletin of the Natural History Society of New Brunswick* 10 (1892): 27-28; John William Dawson, *Fossil Men and Their Modern Representatives*, 3rd ed. (London: Hodder and Stoughton, 1888 [1880]); Alice Bodington to Charles Hill-Tout, 26 November 1892. Charles Hill-Tout Fonds, Special Collections and University Archives, University of British Columbia. Box 1, file 8; and James P. Howley, *The Beothucks or Red Indians. The Aboriginal Inhabitants of Newfoundland* (Toronto: Prospero, 2000 [1915]), xvi.

[49] Roy Porter, 'Afterword,' in *Geography and Enlightenment*, ed. David N. Livingstone and Charles W.J. Withers (Chicago: University of Chicago Press, 1999), 417.

The development of Wilson's four-age classificatory system and its application to the North American context relied heavily upon Enlightenment principles and a profound commitment to environmental explanations of human development. As the product of the Scottish Enlightenment and committed to an evangelical theology, Wilson believed that all humans shared the same basic nature, similar intellectual and spiritual features, and were not fundamentally separated by biology.[53] While variations from

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[50] Wilson, *Prehistoric Man*, I: 184.

[51] Daniel Wilson, 'Hybridity and Absorption in Relation to the Red Indian Race,' *The Canadian Journal of Science, Literature and History* 14, no. 88 (1875): 435.

[52] Wilson, *Prehistoric Man*, I: 177.

[53] For a discussion of the popularity of the psychic unity of humanity in nineteenth-century anthropology, see Klaus-Peter Koepping, *Adolf Bastian and the Psychic Unity of Mankind: The Foundations of Anthropology in Nineteenth Century*

(continued...)

Anglo-Saxon 'civilization' were, of course, seen to contain elements of savagery, Wilson was not prepared to accept that either prehistoric humanity or races other than his own were fundamentally unique. However, like most nineteenth-century ethnographers, Wilson saw the Australian aboriginals and the South American Fuegians as among the most degraded races.[54] The Fuegians in particular displayed 'a wretched condition' and a 'repulsive appearance' that led travelers to describe them as scarcely human, and in the hierarchy of nations Wilson proclaimed them even 'inferior to the Esquimaux' in every way.[55] Yet even this group displayed remarkable ingenuity and skill in building implements and weapons and, together with the aboriginal races of Australia, possessed the essential foundation upon which all civilization was built: fire.[56] The ability to utilize fire marked the first forward steps of humanity and, in making the connection between the 'rudest' tribes and stone age humanity explicit, Wilson emphasized that excavations of the Aurignac cavern at the foot of the Pyrenees likewise revealed that the

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[53](...continued)
Germany (St. Lucia: University of Queensland Press, 1983); idem, 'Enlightenment and Romanticism in the Work of Adolf Bastian: The Historical Roots of Anthropology in the Nineteenth Century,' in *Fieldwork and Footnotes: Studies in the History of European Anthropology*, ed. Han F. Vermeulen and Arturo Alvarez Roldán (London: Routledge, 1995): 75-91; and Trigger, *Sociocultural Evolution*, 32-33.

[54] For a discussion of Charles Darwin's influential reaction upon meeting the Fuegians in 1832, see Adrian Desmond and James Moore, *Darwin* (New York: W.W. Norton & Company, 1991), chapter 10.

[55] Wilson, *Prehistoric Man*, I: 138; and idem, 'Hybridity and Absorption in Relation to the Red Indian Race,' 432.

[56] Wilson, *Prehistoric Man*, I: 138-39.

earliest prehistoric individuals had likewise made abundant use of fire.[57]

Wilson's Cranial Studies

Concomitant with Wilson's belief in the unity of humanity was his commitment to environmental explanations of human advancement, a commitment that profoundly separated his views from those who argued for extreme racial determinants of cultural abilities and development. The causal role of the environment was so pronounced in Wilson's interpretation of prehistory that he argued that civilizations in the so-called New World had in fact developed to such an extent that they rivaled those of the Old.[58] In particular, Wilson argued that two prior New World cultures had reached impressive heights of 'civilization': ancient Peruvian and Mexican society. Peruvian civilization had 'wrought out for itself many elements of progress' including achievements in agriculture, art, science, metallurgy and commerce.[59] The ruins of central America, he continued, illustrated the same level of strength and ingenuity that were evident in the architecture of Egypt or Babylon; independent of outside influences, these societies had achieved the same level of development as seen in the western 'cradle of civilization.'[60] Drawing from John L. Stephens' *Travels in Central America*, Wilson brought attention to a massive terrace of cut stone that he thought worthy to stand in Hyde Park or the Garden of the Tuileries, and equaled any of the remains of Egyptian, Grecian or Roman art or architecture. Significantly, the civilizations that developed in ancient Peru and Mexico did so while entirely isolated from European, Asiatic or African influences.[61] Indeed, the environmentalism proposed by Wilson was so pronounced that the 'intellectual impulse[s]' that went forth from Mexico and Peru 'were in operation independent of each other,' and 'moved in opposite directions, unconscious of rivalry in the development of a native civilisation.'[62] As one reviewer of Wilson's final

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[57] Wilson, *Prehistoric Man*, I: 140-41.

[58] Trigger, *A History of Archaeological Thought*, 120.

[59] Wilson, *Prehistoric Man*, I: 343-53; Daniel Wilson, 'Some Physical Characteristics of Native Tribes of Canada,' *Proceedings of the American Association for the Advancement of Science* 31 (1882): 531-32; and Trigger, *A History of Archaeological Thought*, 120.

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[60] Wilson, *Prehistoric Man*, II: 11; and Trigger, *A History of Archaeological Thought*, 120.

[61] Wilson, *Prehistoric Man*, II: 11-12.

[62] Wilson, *Prehistoric Man*, II: 17; idem, 'Physical Ethnology,' *Annual Report of the Board of Regents of the Smithsonian Institute for 1862* (1863): 249, 252; idem, 'Relative Racial Brain-Weight and Size,' in *The Lost Atlantis and Other Ethnographic Studies* (New York: Macmillan Co., 1892), 387; idem, 'Indications of Ancient Customs, Suggested by Certain Cranial Forms,' *The British American Magazine* 1 (1863): 449; and Trigger, *A History of Archaeological Thought*, 120. Wilson's view of Mexico's past greatness differed considerably from some of his notable contemporaries. Influenced by anti-Mexican sentiment, in the United States there was resistence to claims that Mexico had at one time been home to a great civilization that would have rivaled western societies. Lewis Henry Morgan, considered by many to be the father of American anthropology, reacted against romantic and (what he considered) anachronistic studies that argued for an Aztec monarch with high feudal characteristics. Instead, Morgan argued that there 'was neither a political society, nor a state, nor any civilization in America when it was discovered.' Claims of a superior civilization could be refuted, for example, by pointing toward the fact that '[n]either the Aztecs nor any

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ethnographic volume noted, 'the title [*The Lost Atlantis*] is fanciful and not descriptive, for the attempt to trace a [pre-Columbian] connection between Europe and America is criticised by the author and is not regarded as established.'[63] The principle of the independent development of a 'civilized' society in the so-called New World was not appealing to an emerging evolutionary constituency. In his critical review of the third edition of *Prehistoric Man*, the prominent British anthropologist Edward B. Tylor complained that perhaps Wilson's 'American surroundings' led him to 'ascribe too readily to the native tribes an absolute independence in the development of their civilisation, uninfluenced during historical centuries (as he says) by any reflex of the civilisation of the Ancient World.'[64]

In defending the psychic unity of humanity Wilson was drawn into one of the central debates confronting nineteenth-century prehistorians. Reflecting a growing societal interest in biological determinism and phrenology, the American scientist and physician Samuel G. Morton published *Crania Americana* in 1839, a work that fervently

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[62](...continued)
American Indian tribe had attained to a knowledge of the individual ownership of land in fee simple. The knowledge belongs to the period of civilization.' See Lewis H. Morgan, 'Montezuma's Dinner,' *The North American Review* 122 (April 1876): 265-308; quotes are from pages 308 and 282. For a discussion on this aspect of Morgan's thought and the rise of anti-Mexican sentiments in American anthropology in the nineteenth century, see Trigger, *A History of Archaeological Thought*, 120-21.

[63] Review of *The Lost Atlantis, etc*, by Daniel Wilson, *The American Antiquarian and Oriental Journal* 15, no. 1 (1893): 62.

[64] Edward B. Tylor, 'Wilson's "Prehistoric Man,"' *Nature* 14 (25 May 1876): 66.

rejected the notion that the environment had any impact on mental capacity or body type.[65] Additionally, Morton rejected the notion of the psychic unity of humanity, arguing instead for polygenetic origins. As Louis Agassiz's visceral Philadelphia experience illustrates, theories of polygensis sometimes rested upon conjecture instead of 'scientific' data. Morton, in contrast, amassed a huge collection of human skulls that he studied assiduously prior to his death in 1851.[66] In ranking the mental abilities of races according to the physical size of the brain, Morton's data predictably assigned the largest cranial capacity to Caucasians, followed by Natives and finally by African-American peoples.[67]

In seeking to prove his biological argument, Morton had to show that crania were immune to environmental forces. He did so through a cranial comparison of prehistoric

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[65] Robert E. Bieder, 'The Collecting of Bones for Anthropological Narratives,' *American Indian Culture and Research Journal* 16, no. 2 (1992): 25. For background on Morton, see Bieder, *Science Encounters the Indian*, chapter 3.

[66] Gould, *The Mismeasure of Man*, 82-83.

[67] Although Morton's data varied slightly over time—probably, as Stephen Jay Gould notes, because he switched from white mustard seed to lead shot as a tool in measuring cranial capacity—his later research still 'confirmed' his earlier results: Caucasians had a mean cranial capacity of 92 cubic inches, 'barbarous' Native tribes a capacity of 84 cubic inches, and Native African and American-born Negros a capacity of 83 cubic inches. See Samuel G. Morton, 'Observations on the Size of the Brain in Various Races and Families of Man,' *Proceedings of the Academy of Natural Sciences Philadelphia* 4 (1849): 221-24; and Gould, *The Mismeasure of Man*, 85-87. In the late nineteenth century, Jeffreys Wyman, an anatomist at the Peabody Museum in Harvard, illustrated that apparent skull capacity differed according to the various substances used, with fine sand giving the largest capacity and peas the smallest. See Daniel Wilson, 'Relative Racial Brain-Weight and Size,' in *The Lost Atlantis and Other Ethnographic Studies*, 344 and 371-72.

Natives with those of a more recent origin; the results, Morton argued in *Crania Americana*, indicated that there was little difference in crania capacity between the 'demi-civilized' (which included the Incas, Mexicans and mound builders) and 'barbarous' contemporary Indians, 'proving' conclusively that environmental factors had no impact on the physical development of the skull.[68] Morton's attack on environmental influences was so pronounced that in examining differences in complexion among Natives in both hemispheres he noted that variations in skin tone

> are extremely partial, forming mere exceptions to the primitive and national tint that characterizes these people from Cape Horn to the Canadas. The cause of these anomalies is not readily explained; that it is not climate is sufficiently obvious; and whether it arises from partial immigration from other countries, remains yet to be decided.[69]

In a devastating critique that found a wide academic audience, Wilson challenged Morton's data and conclusions.[70] Whereas individuals such as Morton and Nott

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[68] Samuel G. Morton, *Crania Americana; or, a Comparative View of the Skulls of Various Aboriginal Nations of North and South America: to which is prefixed an Essay on the Varieties of the Human Species* (Philadelphia: John Pennington, 1839), 260; also see Bieder, *Science Encounters the Indian*, 68-69.

[69] Morton, *Crania Americana*, 70-71.

[70] In 1857 Wilson presented his views on Morton's universal cranial type to the ethnological section of the American Association for the Advancement of Science. For written critiques see Daniel Wilson, 'On the Supposed Uniformity of Cranial Type, throughout All Varieties of the American Race,' *Proceedings of the American Association for the Advancement of Science* 11 (1857): 109-27; idem, 'On the Supposed Prevalence of One Type throughout the American Aborigines,' *Edinburgh New Philosophical Journal* 7 (1858): 1-32; idem, 'Physical Ethnology,' *Annual Report of the Board of Regents of the Smithsonian Institute for 1862* (1863): 240-302; and idem, 'Supposed Prevalence of One Cranial Type throughout the American Aborigines,' *The*

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maintained that cranial evidence illustrated a single Native American type, both in ancient and modern times, Wilson's extensive comparative analysis of cranial characteristics argued that despite Morton's impressive collection of skulls, such conclusions were premature and that insufficient research had been carried out among crania, particularly beyond the supposed representative type that had emerged from the Scioto and Grave Creek mounds.[71] Moreover, Wilson accused Morton of emphasizing one or two leading characteristics among numerous varieties of American crania, while ignoring virtually every variation, arguing that each anomaly merely constituted an exceptional aberration. Wilson's own examinations demonstrated that there was no universal type of American Indian crania, and that wide differences existed between Morton's 'nearly absolute' specimen and the prevailing form of many northern tribes such as the Algonquins, Hurons, and Iroquois.[72] This critique proved astute: subsequent studies have confirmed that Morton's sample group was grossly over-represented by an extreme group—the small-brained Inca Peruvians who made up 25 percent of the study. In contrast, the larger-brained Iroquois made up only two percent of Morton's sample.[73]

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[70](...continued)
Canadian Journal of Science, Literature and History 2, no. 12 (1857): 406-35.

[71] Wilson, 'Physical Ethnology,' 247.

[72] Wilson, "Physical Ethnology," 240-65; idem, *Prehistoric Man*, I:120-35, *passim*; and idem, 'Hybridity and Heredity,' in *The Lost Atlantis and Other Ethnographic Studies* (New York: Macmillan and Co., 1892), 337.

[73] Gould, *Mismeasure of Man*, 89.

Moreover, if cranial capacity was the principal determinant of intellectual ability and achievement, Wilson argued that if Morton was indeed correct, the larger skulls of prehistoric individuals necessarily indicated the superiority of ancient humanity. Drawing directly from the Franco-German physician, Dr. Franz Pruner-Bey, Wilson noted that even 'the cranial capacity of the Cro-Magnon women surpass[ed] the average *male* skulls of to-day.'[74] In a society that saw the male body as normative, such a statement had profound implications for a commitment toward a theory that advocated the unilinear advancement of humanity.[75]

Wilson's prehistoric studies were contained within an episodic model of progress. Although cultures could remain static or regress toward savagery—Daniel Wilson pointed to the Fuegians, Australian aboriginals, the 'Esquimaux,' and the arrested development of North American Natives as examples of the former trend and the Incas and Aztecs as examples of the latter—all possessed the capacity to progress in the requirements of 'civilization.' This process could take several distinct paths. As in the case of ancient Peruvian and Mexican society, development could proceed internally and in isolation from outside influences. However, progress did not rely solely upon the independent development of cultures: Enlightenment evolutionists also proposed diffusion and migration as models for cultural change. Indeed, proponents of the Three-Age system had long advocated diffusion, in particular, as a means of explaining technological and societal development. Christian Thomsen and Jens Worsaae's application of this classificatory system to Scandinavia argued that local developments did not occur internally and in isolation, but rather were the product of new peoples and technology migrating from the south.[76] Significantly, Thomsen and Worsaae envisioned only the diffusion (and not replacement) of new technologies and peoples in Scandinavia. However, their model did not always find currency in North America because it allowed for a greater measure of intelligence and creativity for the indigenous peoples of the area (ancient Scandinavians in this case). Diffusionists, for example, vehemently opposed the idea of multiple inventions, and argued that technological developments were invented once and then transmitted around the globe.[77] Migration, a third pattern of cultural transformation, asserted the imposition of one culture upon another. It therefore represented the most pessimistic model proposed by Enlightenment evolutionists since it depicted at least one culture as inflexible and unable to change when faced with the obvious 'fact' of a superior 'civilization.'[78] The use of each of these models of cultural development displayed an inconsistent belief in the innate abilities of American peoples. While one could see the rise of independent inventions in ancient Mexico and Peru, and the diffusion of technology between Mexico and the Yucatan, in North America the migration of Europeans explained virtually all progressive change.

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[74] Wilson,''Relative Racial Brain-Weight and Size,' 357. Emphasis in the original. Idem, *Prehistoric Man*, I: 115.

[75] For a discussion on the gendered notions of the normalcy of the male body (and, by extension, crania) in Victorian Canadian society, see Wendy Mitchinson, *The Nature of Their Bodies: Women and Their Doctors in Victorian Canada* (Toronto: University of Toronto Press, 1991). Indeed, the male skull was not only the normative nineteenth-century standard, but to be viewed as the crucial historical determinant of human development: Wilson noted that Joseph Barnard Davis' presentation on the crania of ancient Britons at the British Association's Glascow meeting had argued that the 'skulls of women seldom exhibit the normal and characteristic ethnic features markedly, and should be employed sparingly.' See Daniel Wilson, 'Crania of Ancient Britons,' *The Canadian Journal of Science, Literature and History* 1, no. 5 (1856): 485.

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[76] Trigger, *Socio-Cultural Evolution*, 40; Gräslund, *Birth of Prehistoric Chronology*, chapters 6-11, *passim*; and Klindt-Jensen, *History of Scandinavian Archaeology*, 79-81.

[77] In the model advocated by Thomsen and Worsaae, diffusion was a useful model for explaining technological transfer because it allowed the intelligence of the ancient Scandinavian to be displayed. In the 1920s, however, diffusionists were locked in an intellectual struggle with British functionalists over the invention of technology (with the latter arguing for multiple inventions) and, as Elazar Barkan notes, the arguments of diffusionists gave 'scientific legitimacy to the notion of the whiteman's

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Some scholars have sought to downplay Wilson's environmentalism in favour of increased attention to racial explanations for determining human hierarchy and behaviour. In her superb *Inventing Canada: Early Victorian Science and the Idea of a Transcontinental Nation* (1987), Suzanne Zeller argues that Daniel Wilson used his anthropological studies to justify colonization as a biological study that inevitably led to the disappearance of Native or 'inferior' races.[79] Even more forcefully, Bennett McCardle has recently argued that Wilson's craniology was essentially useless, 'except as an illustration of "the bad old days" of benighted raciology,' and that his references to

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[77](...continued)
burden in bringing "culture" to the "natives." See *The Retreat of Scientific Racism: Changing Concepts of Race in Britain and the United States Between the Wars* (Cambridge: Cambridge University Press, 1992), 39.

[78] Trigger, *Sociocultural Evolution*, 96.

[79] Zeller, *Inventing Canada*, 260.

environmental influences were buried in hard-to-find journals and rarely followed up as he shifted from one area of study to another.[80] McCardle concedes that Wilson authored an assault on the methods (but not the conclusions!) employed by Nott and other polygenists, although such efforts were quickly made redundant by the rise of Darwinian evolution.[81] Perhaps there is some evidence for such a view: in the newly founded *Canadian Journal*, Daniel Wilson provided instructions and urged members of the Canadian Institute to undertake the collection of crania as had been done in Philadelphia, Paris, Stockholm, Copenhagen, and Edinburgh, several of which had become centres of racial ethnology.[82] In addition, it could be noted that Wilson published his 'Inquiry into the Physical Characteristics of the Ancient and Modern Celt of Gaul and Britain' in the *Anthropological Review*, the organ of the Anthropological Society of London, a racist organization established in 1863 under the leadership of James Hunt that was dedicated to 'the anatomical aspects of ethnology.'[83] However, as Wilson noted elsewhere, this particular article had been forwarded to a number of individuals and scientific societies in London and elsewhere before being appropriated by the *Anthropological Review*.[84] The Anthropological Society of London was modeled upon Paul Broca's *Société d'Anthropologie de Paris* and in opposition to the Ethnological Society of London, and many of its leading members were, or had been, polygenists, whose views were obviously anathema to Wilson. Wilson's flirtation with the Anthropological Society was not isolated: although the Anthropological Society quickly reached a membership of almost 800 by 1866, many were nominal members and others quickly dropped out when they realized the society's racial character and its commitment to a multiple-origins model of human development.[85]

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[80] Bennett McCardle, 'Heart of Heart': Daniel Wilson's Human Biology,' in *Thinking With Both Hands*, ed. Elizabeth Hulse (Toronto: University of Toronto Press, 1999), 112; and idem, 'The Life and Anthropological Works of Daniel Wilson,' (unpublished MA thesis, University of Toronto, 1980), especially 129-30.

[81] McCardle, 'Heart of Heart,' 112.

[82] Wilson, 'Hints for the Formation of a Canadian Collection of Ancient Crania,' 345.

[83] Stocking, *Victorian Anthropology*, 247. McCardle does not make this point in her argument for Wilson's racial thinking. For Wilson's 'contribution' to Hunt's cause see 'Inquiry into the Physical Characteristics of the Ancient and Modern Celt of Gaul and Britain,' *The Anthropological Review* 3, no. 8 (1865): 52-84.

This apparent antinomy between racial and environmental causation must be understood in the context of Wilson's Edinburgh heritage. Edinburgh in the first decades of the nineteenth century was the centre for intellectual dispute and debate on phrenology, a materialist and reform-minded programme that sought to assign psychological traits to particular organs of the brain.[86] The modern concept of phrenology had originated in the minds of two German-born, Vienna-trained physicians, Franz Joseph Gall and Johann Gaspar Spurzheim. After being banned from Austria, Gall and Spurzheim traveled to Germany before settling in Paris. It was Spurzheim, following a disagreement with Gall, who popularized the movement abroad; following a bitter review by John Gordon of two works by the phrenologists in the *Edinburgh Review* in 1815, Spurzheim began a series of public lectures in Scotland. The phrenologist had a profound impact on Edinburgh society during the next two decades, and made important converts to his cause, including, most obviously, George Combe whose *Constitution of Man* (1828) sold 70,000 copies by 1840.[87]

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[84] Wilson, 'Race Head-Forms,' 286 and 291.

[85] Stocking, *Victorian Anthropology*, 250.

[86] While the phrenology programme is most often seen as materialistic, there were religious and reform-minded supporters of this movement as well. For a discussion that emphasizes the reform-minded elements of phrenology, see Steven Shapin, 'The Politics of Observation: Cerebral Anatomy and Social Interests in the Edinburgh Phrenology Debates,' in *On the Margins of Science: The Social Construction of Rejected Knowledge*, ed. Roy Wallis (Keele: University of Keele Press, 1979), 139-78.

In addition to spending his formative years in Edinburgh in the midst of the public debate on phrenology, Daniel Wilson had direct access to the phrenological tradition from two important sources. First, his friendship with Robert Chambers no doubt exposed him to the possibilities that phrenology held for the progress of humanity.[88] By the time *Vestiges of the Natural History of Creation* first came out in 1844, the debate in Edinburgh—although not necessarily elsewhere in the English-speaking world—had largely been settled in favour of those who thought phrenology a quackery. Chambers, however, still gave this science a prominent place within his challenge to orthodoxy.[89] Indeed, James Secord argues that Combe's *Constitution of Man* was so influential that it was in many ways a model for Chambers when he sat down to write *Vestiges*.[90] The tenets of phrenology coincided neatly with Chambers' belief in progress through natural law: Franz Gall, he argued, had provided a 'system of mind ... founded upon nature' that when revealed in 'mature man ... [provided for] an indefinite potentiality and range of action.'[91] This was not Wilson's only direct exposure to phrenological thought. While Wilson was studying ancient Scottish crania in his transformation from antiquarian to prehistorian in 1849 and 1850, Dr. Walter Adam, a Fellow of the Royal College of Physicians, had given him a series of measurements of 69 ancient French crania. Adam had studied medicine and anatomy under Dr. John Barclay, a noted critic of phrenology, before traveling to Paris where he 'was fascinated for a time by the attractions of the lecturer [Spurzheim], as well as the seductive promises of the [phrenological] science.'[92] However by 1849 his faith in the teachings of Spurzheim had long passed away and he provided the measurements to Wilson.[93]

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[87] For relevant studies on phrenology see Roger Cooter, *The Cultural Meaning of Popular Science: Phrenology and the Organization of Consent in Nineteenth-Century Britain* (Cambridge: Cambridge University Press, 1984); idem, 'Phrenology: The Provocation of Progress,' *History of Science* 14 (1976): 211-234; G.N. Cantor, 'The Edinburgh Phrenology Debate: 1803-1828,' *Annals of Science* 32 (1975): 195-218; Shapin, 'The Politics of Observation,' 139-78. For a brief discussion of the appeal of phrenology to twentieth-century racial thought, see Barkan, *The Retreat of Scientific Racism*, 52.

[88] Ash, 'Old Books, Old Castles, and Old Friends,' 74.

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[89] For the hostile reaction of the British Association for the Advancement of Science toward phrenology in the 1830s, see Jack Morrell and Arnold Thackray, *Gentlemen of Science: Early Years of the British Association for the Advancement of Science* (Oxford: Clarendon Press, 1981), 278-80.

[90] James A. Secord, 'Behind the Veil: Robert Chambers and *Vestiges*,' in *History, Humanity and Evolution: Essays for John C. Greene*, ed. James R. Moore (Cambridge: Cambridge University Press, 1989), 172; and idem, 'Introduction,' in *Vestiges of the Natural History of Creation and Other Evolutionary Writings*, by Robert Chambers (Chicago: University of Chicago Press, 1994 [1844]), xxi.

[91] Robert Chambers, *Vestiges of the Natural History of Creation and Other Evolutionary Writings*, ed. James A. Secord (Chicago: University of Chicago Press, 1994 [1844]), 341, 343.

Although phrenology claimed allegiance with Baconian science, Wilson was not, obviously, a phrenologist.[94] As Andrew F. Hunter later claimed, Wilson 'rightly ridiculed' phrenology and designated it as 'bumpology.'[95] Among the most prominent critics in the Edinburgh phrenological debate were followers of the Scottish Common Sense as taught in the University by Dugald Stewart and defended in the *Edinburgh Review*.[96] However, Wilson quite rightly noted that despite the failure of Gall and Spurzheim's phrenological system, science should not be blind 'to the valuable results of their labours in other directions... .'[97] In a series of books and articles the ethnologist and physician James Prichard—who had studied at Edinburgh with Dugald Stewart and shared many intellectual principles with Wilson—launched a vigorous attack on phrenology.[98] However, in spite of such criticism, Wilson was able to agree with Prichard that it was 'in the head that we find the varieties most strongly characteristic of different races.'[99] In his study of American phrenology, John Davies argues that this science had implications for the development of physical anthropology. The attention that phrenology gave to the brain and its corollary emphasis on the human skull spurred interest and investigation into the discipline of anthropology during its formative period.[100] Although Wilson rejected basic phrenological principles, he argued that at its most simple level, comparative cranial examination could provide the prehistorian with access to the specimen's sex and age; at a more complex level—although he admitted that the study of crania was beset by problems and ambiguities—he also argued that it could operate as a classificatory system that could identify the location, antiquity, migration patterns and even ethnic makeup of particular races.[101] An examination of crania illustrated enormous value in 'throw[ing] light on periods anterior to written history' and—in his initial incursion into cranial comparison—convinced Wilson that there had been a series of diverse races present during successive eras in prehistoric Britain.[102] In addition, although Wilson generally conceded that the largest and heaviest brains and crania did tend to appear among the most civilized and intelligent nations, there was no uniform law mandating such a belief either in races or individuals.[103] Such a belief was contrary to contemporary anthropological theory and Wilson reacted vehemently toward individuals such as Paul Broca, considered by many the founder of French anthropology, who argued for the progressive development in crania size and intelligence from the ancient troglodyte of the post-glacial age to the modern Parisian.[104]

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[92] Wilson, 'Race Head-Forms,' 278; and Cantor, 'The Edinburgh Phrenology Debate,' 198.

[93] Wilson, 'Race Head-Forms,' 280.

[94] For the appropriation of a Baconian philosophy by phrenologists, see Bozeman, *Protestants in an Age of Science*, 26.

[95] Andrew F. Hunter, 'Sir Daniel Wilson's Archaeological Work, Mainly "Prehistoric Man [n.d.]."' Andrew F. Hunter Fonds, Archives of Ontario, Toronto. Box 1.

[96] Cantor, 'Edinburgh Phrenology Debate,' 198; and Shapin, 'Politics of Observation,' 144.

[97] Wilson, 'Race Head-Forms,' 280, 287-88, 299. Steven Shapin notes that on issues of cerebral anatomy the phrenologists quite often 'got it right.' See Shapin, 'Politics of Observation,' 147.

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[98] For a record of Prichard's criticisms of phrenology see Cooter, *The Cultural Meaning of Popular Science*, 311, n. 47. Andrew Combe was a physican and the younger brother of George; for his response to Prichard see [Andrew Combe], 'Cyclopædia of Practical Medicine. — Dr Prichard and Phrenology,' *Phrenological Journal* 8, no. 40 (1834): 649-57.

[99] Wilson, 'Race Head-Forms,' 270.

[100] John D. Davies, *Phrenology, Fad and Science: A 19th-Century American Crusade* (New Haven: Yale University Press, 1985), 143; and Paul A. Erickson, 'Phrenology and Physical Anthropology: The George Combe Collection,' *Current Anthropology* 18, no. 1 (1977): 92-93.

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[101] A later generation of physical anthropologists was critical of Wilson's approach and methodology. Aleš Hrdlička, the Harvard-based physical anthropologist, noted that while Wilson's studies had considerable contemporary value, they were 'somewhat general in nature,' lacked 'the hand of the specially trained anatomist and anthropologist,' and therefore 'left no substantial, enduring impression on the progress of physical anthropology.' See Aleš Hrdlička, 'Physical Anthropology in America: An Historical Sketch,' in *Anthropology in North America*, ed. Franz Boas, *et al.*, (New York: G.E. Stechert & Co., 1915), 168; and McCardle, 'Heart of Heart,' 111.

[102] Wilson, 'Race Head-Forms,' 270 and 297-98; quotation from pages 297-98.

[103] Wilson, 'Relative Racial Brain-Weight and Size,' 339-42.

[104] Wilson, 'Relative Racial Brain-Weight and Size,' 358. Stephen Jay Gould argues that of all Broca's conclusions, none won more respect or attention than his argument of a steady increase in brain size as European civilization advanced. See Gould, *The Mismeasure of Man*, 127; and Milford Wolpoff and Rachel Caspari, *Race and Human Evolution* (New York: Simon & Schuster, 1997), 94-95.

In the face of such an evolutionary continuum, Wilson cautioned that '[we] are indeed too apt to apply our own artificial standards as the sole test of intellectual vigour' and pointed toward the large-brained Neanderthal of the Mammoth and Reindeer periods of central Europe whose 'ingenious skill and great artistic ability gave evidence of latent intellectual capacity of a high order.'[105] Conversely, Wilson also pointed toward the small-brained Peruvian who exhibited a high degree of civilization and thus served as an illustration 'of the apparent inverse ratio of volume of brain to intellectual power and progressive civilization among the native races of the American continent.'[106] Indeed, Wilson no doubt took some pleasure in pointing out that although Dr. Samuel Morton seems to 'have adduced results apparently pointing to the conclusion that civilization had progressed among the native races of the American continent in an inverse ratio to the volume of brain,' he typically passed over such contradictions with 'slight comment.'[107] Moreover, Wilson noted that environmental factors such as educational level, social class and purposeful artificial deformation of crania must be taken into consideration: drawing upon a well-known study of crania, he noted that it was clear that the cranial capacity of those from 'the middle class of society' tended to be considerably above those of 'pauper' classes.[108] While he pointed toward exceptions in a simple evolutionary continuum and recognized distinct environmental influences in determining cranial size and shape, Wilson did not go as far as Professor Jeffreys Wyman—the curator at Harvard's Peabody Museum and a leading anatomist and ethnologist—whose examination of the Squier crania collection had led him to conclude categorically that 'brain measurement cannot be assumed as an indication of the intellectual position of races any more than of individuals.'[109] Instead, imbedded within profound internal tensions, Wilson's anthropology forced him to conclude that despite environmental influences and anomalous examples of microcephaly such as the ancient Peruvians, relative largeness of the brain remained 'one of the most distinguishing attributes of man,' and generally accompanied intellectual capacity, both in individuals and in races.[110]

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[105] Wilson, 'Relative Racial Brain-Weight and Size,' 349, 358.

[106] Wilson, 'Relative Racial Brain-Weight and Size,' 388.

[107] Wilson, 'Relative Racial Brain-Weight and Size,' 392.

Daniel Wilson and Hybridity

Paul Broca was a follower of Samuel Morton, an excellent anatomist and physician, and, as the founder of the *Société d'Anthropologie de Paris* and author of

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[108] Wilson, 'Relative Racial Brain-Weight and Size,' 366-67. Wilson was also captivated with what he considered the 'fetish' of artificial cranial distortion and wrote extensively on it. See Wilson, *Prehistoric Man* II: 204-37.

[109] *Peabody Museum Report* (1874): 11; cited in Wilson, 'Relative Racial Brain-Weight and Size,' 396.

[110] Wilson, 'Relative Racial Brain-Weight and Size,' 401. See Table 1.1: Comparative Cerebral Capacity of Races.

Race	**Number**	**Capacity (cubic inches)**	**Brain Weight (Ounces Average)**
European	299	92.3	47.12
English	21	93.1	47.50
Asiatic	124	87.1	44.44
Chinese	25	92.1	47.00
Hindoos	35	82.5	42.11
Negroes	16	86.4	44.08
Negro Tribes	69	85.2	43.47
American Indians	52	87.5	44.64
Mexicans	25	81.7	41.74
Peruvians	56	75.0	38.25
Eskimos	13	91.2	46.56
Oceanic	210	89.4	45.63
Javans	30	87.5	44.64
Australians	24	81.1	41.38

Table 1.1: Comparative Cerebral Capacity of Races. Wilson drew the data for this table from the separate work of J.B. Davis and Dr. Jeffreys Wyman as well as from his own measurements. Perhaps reflecting the conflicting ideology of these very different sources, Wilson's table suggests that while there is a whiggish ethnology that stretches from the 'primitive' Australian to the 'civilized' English, there were also the anomalous presence of the small-brained but advanced Peruvian, Hindoo and Mexican people.

Source: Wilson, 'Relative Brain-Weight and Size,' in *The Lost Atlantis and Other Ethnographic Studies*, 401.

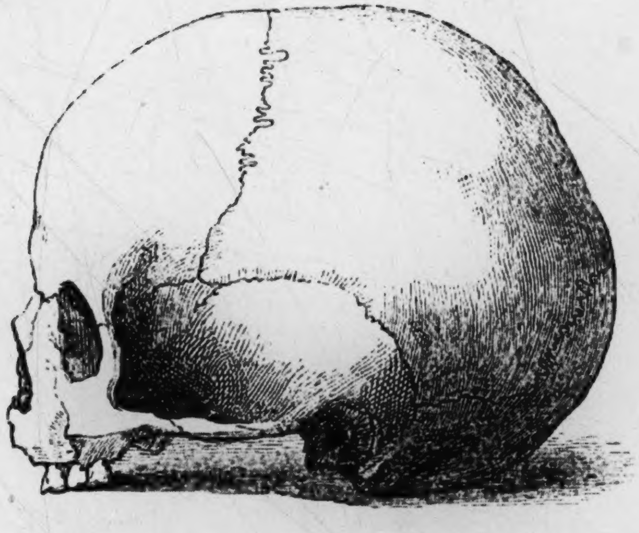

FIG. 116.—Peruvian Brachycephalic Skull.

Figure 1.1: Peruvian Brachycephalic Skull. The small-brained Peruvian skull belonged to an advanced culture, and thus 'seemed to indicate that civilisation had progressed in an inverse ratio to the cerebral mass (143).'

Source: Wilson, *Prehistoric Man*, II:144.

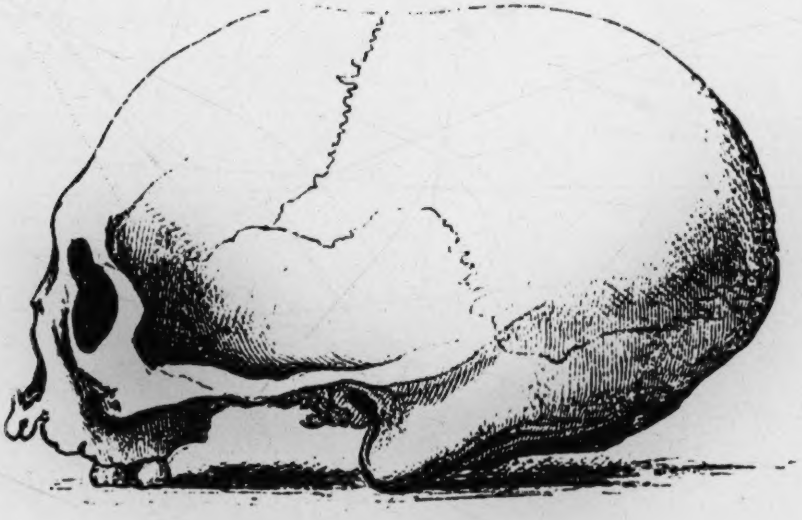

Fig. 119.—Peruvian Dolichocephalic Skull

Figure 1.2: Peruvian Dolichocephalic Skull. A rarer cranial type, Wilson speculated that perhaps it belonged to an older patrician class. In any case, it spoke to the cranial diversity of ancient Peru.

Source: Wilson, *Prehistoric Man*, II:153.

several important anthropological works, he had a profound impact on the development of physical anthropology in France and beyond.[111] As a believer in multiple origins, Broca had a vital interest in 'proving' that races could not successfully interbreed and were, therefore, completely separate races.[112] Broca's interest in hybridity reflected one of the dominant concerns in nineteenth-century anthropological thought: from the 1840s onward, as Robert Young argues, the 'question of species, and therefore of hybridity' was at the centre of anthropological discussion.[113] As the example of Broca, Robert Knox and others illustrate, the interbreeding of 'distant' races was thought to lead toward infertility and the degeneration of the species. This ideological argument became the dominant view from the middle of the nineteenth century to the 1930s.[114] In 1863, to cite one powerful example, Abraham Lincoln set up the American Freedman's Inquiry

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[111] Gould, *The Mismeasure of Man*, 114-141, *passim*; and Wolpoff and Caspari, *Race and Human Evolution*, 94-95.

[112] Gould, *The Mismeasure of Man*, 114-41, *passim*; and Wolpoff and Caspari, *Race and Human Evolution*, 94-95.

[113] Robert J.C. Young, *Colonial Desire: Hybridity in Theory, Culture and Race* (London: Routledge, 1995), 7.

[114] Young, *Colonial Desire*, 18; Nancy Stephan, *The Idea of Race in Science: Great Britain 1800-1960* (London: Macmillan, 1982), 105-6; Robert Bieder, 'Scientific Attitudes Toward Indian Mixed-Bloods in Early Nineteenth America,' *Journal of Ethnic Studies* 8, no. 2 (1980): 17-30; and Wilson, 'Race Head-Forms and Their Expression by Measurement,' 295. At the 1935 Eugenic Society of Canada annual meeting, a keynote paper was presented by Dr. Frank N. Walker who claimed that racial intermarriage produced offspring characterized by mental and physical defects. See Angus McLaren, *Our Own Master Race: Eugenics in Canada, 1885-1945* (Toronto: McClelland & Stewart, 1990), 120.

Commission to investigate the condition of newly emancipated slaves. The following year, Robert Dale Owen, a member of the Commission, published *The Wrong of Slavery, the Right of Emancipation, and the Future of the African Race in the United States* (1864). While Owen favoured emancipation, he drew upon evidence presented to the Commission to argue that 'the mixed race is inferior, in physical power and in health, to the pure race, black or white.'[115] As evidence for this view, Owen drew upon the testimony of a Dr. Mack of St. Catharine's, Ontario, who testified:

> The mixed race are the most unhealthy, and the pure blacks the least so. The disease they suffer most from is pulmonary. Where there is not real tubercular affection of the lungs, there are bronchitis and pulmonary affections. I have the idea that they die out when mixed, and that this climate will completely efface them. I think the pure blacks will live.[116]

Mack's assertion that racial crosses inevitably led toward inferiority and degeneration was lasting within both informal and formal approaches to the prehistoric past. For instance, Annie Wigmore's naive explorations into 'the Prehistoric Races'— by which she meant not 'our present race but ... the first people that inhabited the earth'—claimed that judgement in the form of the Noahic Flood had been delivered when first humanity had 'intermarried' with 'the new creation [modern humanity]' and as a result 'the mixed race was destroyed.'[117] With greater authority, in 1917 the prominent British anthropologist Arthur Keith argued that the mixed offspring of British sailors and Polynesian women were less mentally fit than average, and similar sentiments continued to be articulated in the eugenics movement as late as the 1930s.[118]

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[115] Robert Dale Owen, *The Wrong of Slavery, the Right of Emancipation, and the Future of the African Race in the United States* (Philadelphia: Lippincott, 1864); cited in Young, *Colonial Desire*, 147-48. Also see 'Miscegenation,' *The Anthropological Review* 2 (May 1864): 116-21; and review of *On the Phenomena of Hybridity*, by Paul Broca, *The Anthropological Review* 2 (August 1864): 164-73.

[116] Owen, *The Wrong of Slavery, the Right of Emancipation, and the Future of the African Race in the United States*; cited in Young, *Colonial Desire*, 148.

In contrast to the view presented by Owen and Mack, Daniel Wilson argued that ethnology had proved that the supposed purity of an Anglo-Saxon (or other) race was largely fictional. Instead, he maintained that 'in the mixed population of modern Britain' there exists 'a race element which still perpetuates an enduring influence derived from aborigines of Europe anterior to the advent of [the] Celt or Teuton.'[119] When an 'inferior' culture interacted with a 'superior' civilization, the tendency was not toward the total extinction of the former group; rather, there was a process of absorption and assimilation that inevitably involved the mixing of races and cultures.[120] Just as the New World provided Wilson with first-hand observation of 'primitive man,' it likewise constituted a 'grand ethnological experiment' that illustrated the mixing of the races over the previous three hundred years.[121] Ethnogenesis provided for two possible options, both of which had environmental as well as biological implications: when the métis children remained with the Native mother, they were likely to embrace their indigenous heritage; in contrast, when adopted by the non-native father they would acquire the habits of western culture. Indeed, in Lower Canada there had already been an infusion of Native blood to such an extent that individuals of aboriginal heritage were present in all ranks of society.[122] Just as a mixed-blood population had risen to the highest level of Lower Canadian society, the métis of Red River were a 'robust race' who had taken on the trappings of 'civilized' society, including property ownership and an agrarian lifestyle.[123] With the seemingly inevitable extinction of the buffalo, the nature of the Red River métis contrasted sharply from that of the plains Native: indigenous groups would be forced to move on in the inevitably fruitless search for future hunting grounds while the métis would return to Manitoba permanently and 'cast in their lot with the other members of the new province.'[124] Likewise, Wilson noted that among the Mohawks in the Bay of Quinte region the mixing of races had gone on to such an extent that there existed no traces of pure Indian blood. By the mid-nineteenth century, they had already passed 'the most critical transitional stage' in the march of progressive civilization and their numbers—in contrast to the perceived condition of most Native groups—were increasing.[125] Reflecting his belief in a universal form of parallel evolution, argued Wilson, was similar to that which had occurred in many European communities and he looked forward to the establishment of a new race and civilization.[126] Indeed, miscegenation not only held out the promise of ethnic progress in Canada, but arguably played a role in the progress of all past human civilization. Drawing extensively from Wilson, John Reade maintained that the notion that 'the fusion of white with Indian blood [was] of rare occurrence' was largely fictional.[127] Instead, as Reade profusely illustrated, 'there is not a single pure race on the globe at the present time,' a consideration that 'has played a most important part in the advance of mankind to the stage of progress which it has reached to-day.' While the immediate concerns of miscegenation might seem 'localized and isolated from the general concerns of civilization,' it should not be so considered.[128] On a cosmic sense, the 'grand ethnological experiment' of the new world was part of a historic process that had been played out innumerable times in the past, and would continue in the future for the betterment of humanity.

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[117] Annie Wigmore, *Dreams of the First and Twentieth Century* (Toronto: Hunter, Rose Co., 1898), 77-81

[118] Arthur Keith, 'The Physical Characteristics of Two Pitcairn Islanders,' *Man* 88 (August 1917): 121-131; cited in Stephan, *The Idea of Race in Science*, 105-106.

[119] Wilson, 'Hybridity and Heredity,' 336.

[120] Wilson, 'Hybridity and Heredity,' 336; idem, *Prehistoric Man*, II: 250; and idem, 'Displacement and Extinction among the Primeval Races of Man,' *Edinburgh New Philosophical Journal* 4 (1856): 47, 49.

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[121] Wilson, *Prehistoric Man*, II: 257-58.

[122] Wilson, *Prehistoric Man*, II: 253; Daniel Wilson to Lewis Henry Morgan, 13 May 1861. L.H. Morgan Collection, Rush Rhees Library, University of Rochester; and Wilson, 'Hybridity and Heredity,' 319.

[123] Wilson, 'Hybridity and Heredity,' 321-30; and idem, *Prehistoric Man*, II: 262.

[124] Wilson, *Prehistoric Man*, II: 263.

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[125] Wilson, *Prehistoric Man*, II: 263; idem, 'Pre-Aryan American Man,' in *The Lost Atlantis and Other Ethnographic Studies*, 192-93; and Trigger, '*Prehistoric Man*,' 98, 100 n.49. As Trigger points out, toward the end of his life, Wilson became aware that such a new race would not develop. See Wilson, 'Hybridity and Heredity,' 336.

[126] Wilson, *Prehistoric Man*, II: 291-92.

[127] John Reade, 'The Half-Breed,' *Transactions of the Royal Society of Canada* 3 (1885): 1.

[128] Reade, 'The Half-Breed,' 21.

Wilson was vitally concerned with the specter of polygenesis, and his belief that 'ethnological displacement' via hybridity did not amount to a 'literal extirpation' but rather was to be regarded simply as 'equivalent to absorption,' was designed to defend the unity of humanity and its capacity for progress. This concept was revolutionary in its era: as Robert Young persuasively argues, the dominant use of 'hybridity' in the nineteenth century implied that separate races were in fact separate species, and that miscegenation inevitably resulted in degeneration.[129] In his review of the first edition of *Prehistoric Man*, R.H. Patterson in the *North British Review* implicitly noted the significance of Wilson's discourse on hybridity. Patterson recorded that the common assumption that the

> approaching extinction of the Indian tribes has long been regarded as an inevitable event by every one who has considered the subject. They will not—apparently they cannot—become civilized. They are the least pliable of any barbarous race of which we have had cognisance, and, moreover, they are placed in circumstances the least favourable for the gradual adoption of civilisation. They, the wildest and most nomadic race on the globe, are brought into direct contact with the highest civilisation which has arisen among mankind.[130]

However, in spite of this assessment, Patterson asked rhetorically, '[a]re they to vanish utterly, like the beaver and the wild buffalo? The answer to this question, which has been given by all writers on the subject, has hitherto been an unhesitating affirmative.' Instead, Wilson now 'presents us with a new and, we must say, more acceptable view of the case.'[131]

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[129] For an introduction to his thesis, see Young, *Colonial Desire*, chapter 1.

[130] [R.H. Patterson], 'Wilson's *Prehistoric Man*,' *North British Review* 39, no. 77 (1863): 31-32.

However, in upholding the oneness of humanity and its capacity for progress via the vehicle of hybridity, Wilson also extended a progressionist scheme that ultimately subsumed indigenous culture. As Alice Beck Kehoe notes, after two volumes lauding the achievement of aboriginal culture, the final pages of *Prehistoric Man* ultimately parroted an ideology of conquest:

> the intrusion of the vigorous races of Europe ... are to replace scattered tribes living on in aimless, unprogressive strife ... races who accomplish imperfectly every object of man's being. If the survivors can ... be admitted to an equal share with the intruding coloniser, in the advantages of progressive civilisation: then we may look with satisfaction on the close of that long night of the Western world, in which it has given birth to no science, no philosophy, no moral teaching that has endured.[132]

Others intuitively saw this as well. Following two years among the métis of Canada in the 1860s, A.P. Reid reported to the Royal Anthropological Institute:

> The mixed races of North-Western Canada as a class are admirably adapted for their location, but no doubt immigration will greatly dilute the Indian blood, as well as greatly modify their habits. They are quick to recognise improvement and apt to learn, so that they will not lag in the rear in the march of civilisation.

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[131] [Patterson], 'Wilson's *Prehistoric Man*,' 32.

[132] Wilson, *Prehistoric Man*, II: 339-40; cited in Kehoe, *The Land of Prehistory*, 80-81.

> Hence we may expect them to be recognised and valued as one of the many peoples that will go to make up the population of the Dominion of Canada.[133]

Thus, while the 'survivors' could claim a role in the advance of 'progressive civilisation' it was clear that they must 'greatly modify their habits': aboriginal culture necessarily would falter in the face of the dominant western ideal.

Among his other duties at the 1893 Columbia Exposition at Chicago, Franz Boas headed a project to collect anthropometric data illustrating the racial characteristics of North American Natives. The project was ambitious: eight Clark and Harvard university students and a large number of missionaries, doctors, Indian agents and teachers gathered thousands of individual measurements from some 17,000 aboriginal people stretching from Greenland to the Aleutians and from Nova Scotia to Arizona.[134] In publishing his results, Boas argued that few areas of the world were as suitable as North America for the study of the intermixture of races where 'a process of slow amalgamation between three distinct races is taking place.' Boas noted the persistence of the racial stereotype: it 'is generally supposed that hybrid races show a decrease in fertility, and are therefore not likely to survive.' [135] At this time Boas was on the verge of his famous assault on the comparative method of the cultural evolutionists; while his investigation into hybridity was ultimately a frustrating experience in physical anthropology, [136] it did lay assault on another racial myth. Instead of displaying infertility and degeneration, Boas' anthropometric data suggested (among other conclusions) that métis mothers were less likely to be childless and had more and taller children. This occurred in spite of the fact that there was 'no appreciable difference between the social or geographical surroundings of the Indians and the half bloods... .'[137]

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[133] A.P. Reid, 'The Mixed or "Halfbreed" Races of North-Western Canada,' *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 4 (1874-1875): 51.

[134] Cole, *Franz Boas: The Early Years*, 152-53 and 269.

[135] Franz Boas, 'The Half-Blood Indian. An Anthropometic Study,' *The Popular Science Monthly* 45 (1894): 761.

Despite shared optimism on the issue of hybridity, Wilson was not the intellectual antecedent of Boas. While Boas was drawn to physical anthropology by a belief that in this field the methods of the natural sciences were particularly germane,[138] Wilson's interest in hybridity stemmed from an Enlightenment heritage that sought to protect the unity of humanity and the capacity of each society to progress. In spite of a persistent and underlying imperialist ideology, Wilson's argument that miscegenation was not equivalent to 'literal extirpation' but rather was the equivalent of absorption did ideally anticipate the retention of 'progressive' aboriginal characteristics. Wilson was not, perhaps, that far from the mature Boas who suggested that if one were to identify the most intelligent, imaginative, energetic and emotionally stable members of humanity, all races would be represented.[139] More recently Patrick Douaud has provocatively noted that some contemporary Canadian métis maintain that the future of their people lies in purposefully integrating the normally conflicting white and Native worlds in the phenomenon of heterosis or hybrid vigor.[140] While neither Wilson nor Boas were as optimistic, the futility of their arguments lay either in political and cultural realities (for Wilson) or genetic ignorance (for Boas), and not in an underlying racial ideology.

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[136] Cole, *Franz Boas: The Early Years*, 269-70.

[137] Boas, 'The Half-Blood Indian,' 761-63, quotation from page 763.

[138] Cole, *Franz Boas: The Early Years*, 268-70.

The Victorian Verdict: The Two Paths of Wilson and Lubbock

While Wilson's fieldwork did not anticipate the detailed study of specific cultural locales that would be characteristic of later generations of anthropologists, his move to Toronto was a catalyst toward a new research methodology. While sitting on the shore of Lake Superior in 1855, Wilson wrote to his friend David Laing in Edinburgh that 'it is my good fortune to see the red Indian Savage, painted, and adorned in his genuine native condition, and to observe thus the manners and habits of a people probably closely resembling those of Scotlands [sic] primitive eras... .'[141] The next year

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[139] Franz Boas, *Anthropology and Modern Life* (New York: Dover Publications, Inc., 1986 [1928]), 79.

[140] Patrick Douaud, 'Heterosis and Hybrid Ethnicity,' *Anthropos* 82 (1987): 215.

[141] Daniel Wilson to David Laing, 8 September 1855, 'Edinburgh University Library, David Laing Papers.' Marinell Ash Papers, University of Toronto Archives. Box 1, file 8.

Jens Worsaae	**Daniel Wilson**	**John Lubbock**	**Gabriel de Mortillet**	**Lewis H. Morgan**
Iron Age	Christian Age	Iron Age	Iron Age	Civilization
Bronze Age	Iron Age	Bronze Age	Bronze Age	Upper Barbarism
Stone Age	Bronze Age	Neolithic Age	Robenhausian Age	Middle Barbarism
	Stone Age	Palaeolithic Age	Palaeolithic Age	Lower Barbarism
				Upper Savagery
				Middle Savagery
				Lower Savagery

Table 1.2: Prehistoric Subdivisions of Five Anthropologists. The concept of 'whig ethnology' in which humanity passed from the its lowest stages to its highest was a common feature in nineteenth-century western anthropology.

Source: Wilson, *The Archæology and Prehistoric Annals of Scotland* (1851); and A. Bowdoin Van Riper, *Men Among The Mammoths*, 196.

he toured the mid-western states, and in subsequent visits to the field and museum was able to personally handle and examine in detail the mound builder specimens that Edwin G. Davis had collected in the 1840s.[142] His Toronto responsibilities soon curtailed such activities, so much so that he joked with Lewis H. Morgan in 1876 that he was now principally engaged in 'practical ethnology' in the form of grown daughters and a two year old grandson.[143] Nevertheless, as Alice Kehoe notes, Wilson's early combined efforts in the field and the classroom constituted a methodological advance that modestly distinguished him from John Lubbock and a generation of armchair anthropologists that characterized the pre-Boasian era.[144]

Wilson's profound environmentalism, belief in the innate abilities of North American Natives, and episodic notions of progress and degeneration can be clearly observed when placed alongside the views of John Lubbock, the most popular advocate of the prehistoric studies in the nineteenth century. Although often ignored by twentieth-century scholarship, Wilson had an obvious impact on Lubbock's ideas concerning prehistory.[145] In his review of the third edition of Wilson's *Prehistoric Man*, Edward B. Tylor, the prominent anthropologist and author of *Primitive Culture*, noted its influence on Lubbock's title as well as 'its incorporation into the name of the "Congress of Prehistoric Archaeology," which held its first meeting at Neuchâtel in 1866.'[146] Perhaps because Lubbock so obviously surpassed Wilson in popularizing the term and discipline, the former's use of the word 'pre-historic' was a source of constant irritation. In both private and public formats, Wilson made clear that it was proper to print the word 'prehistoric' rather than 'pre-historic' as Lubbock favoured.[147] Beyond this, Lubbock illustrated a familiarity with the first editions of both *Prehistoric Annals* and *Prehistoric Man*, and appropriated a form of the Three Age classificatory system established by Scandinavian scholars and popularized by Wilson in the English-speaking world.[148] However, while Lubbock's review of the first edition of *Prehistoric Man* in the X-Club's *Natural History Review* did acknowledge the book to be 'very readable' and did concur with it on several points, it also illustrated profound intellectual differences.[149] However, Lubbock chafed at Wilson's suggestion that natural selection was irreligious, the Toronto professor's belief 'that God made man "in his own image,"' and the necessity of placing the question of human antiquity within 'moderate ... if undefined bounds.'[150] Moreover, Lubbock's *Pre-historic Times*—which appeared two years after his review of Wilson—painted a starkly different image of innate Native potential: in his infamous final chapters of *Pre-historic Times*, Lubbock denied that contemporary 'savages are, as a general rule ... the miserable remnant of nations once more civilized,' arguing instead that there is no scientific evidence for such an assertion.[151] In addition to denying the possible degeneration from a more 'civilized' state, Lubbock joined in with the hardening of racial attitudes toward human types in the last decades of the nineteenth century in virtually equating contemporary Natives with animals. In discussing the marital arrangements of North American Natives he claimed that some called their wives 'dogs' and had the 'moral and legal right to take the wife of any man weaker than he ... just like stags and males of other wild beasts.'[152] Of course, within the harsh tenor of Lubbock's proclamation, these 'savages' could not have inherent and universal tendencies toward a greater spiritual power. Lubbock argued that Wilson's claim that the practice of ancient peoples of burying implements proved the existence of a belief 'in the immortality of the soul and in a material existence after death' was erroneous; instead, such practices were 'quite the exception and not the rule' and one must 'come to a conclusion exactly the reverse of that stated by Dr. Wilson.'[153]

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[142] Daniel Wilson, 'Trade and Commerce in the Stone Age,' in *The Lost Atlantis and Other Ethnographic Studies*, 117-18. Indeed, Wilson's examination of the Scioto-Mound skull led him to argue that Squier and Davis' lithographs were 'specially inaccurate' when compared to the original. See Wilson, 'Race Head-Forms,' 275-77.

[143] Daniel Wilson to Lewis H. Morgan, 5 August 1876. L.H. Morgan Collection, Rush Rhees Library, University of Rochester.

[144] Kehoe, *The Land of Prehistory*, 53.

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[145] Most recently Alice Kehoe has brought attention to the intellectual relationship between the two. See Kehoe, *The Land of Prehistory*, chapter 3.

[146] Edward B. Tylor, 'Wilson's Prehistoric Man,' *Nature* 14 (25 May 1876): 66.

[147] Daniel Wilson to F.W. Putnam, 27 December 1881, 'Harvard University Archives.' Marinell Ash Papers, University of Toronto Archives. Box 1, file 5. For published references see Wilson, *Prehistoric Annals* I: xiv; and idem, *Prehistoric Man*, I: vii.

[148] Kehoe, *The Land of Prehistory*, 58; and [John Lubbock], 'Wilson's Prehistoric Man,' *Natural History Review* no. 9 (1863): 26. See Table 1.2.

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[149] Formed in 1864 the X-Club operated informally within the confines of the Royal Society and was dedicated to the defense of evolutionary naturalism and the freedom of science from theology. Herbert Spencer, T.H. Huxley and Lubbock were among its nine members.

[150] [John Lubbock], 'Wilson's Prehistoric Man,' 30. On Lubbock and his relationship to Darwin see Murphree, 'The Evolutionary Anthropologists,' 266-68, 273-77; Janet Browne, *Charles Darwin: Voyaging* (Princeton: Princeton University Press, 1995), 538; and Adrian Desmond and James Moore, *Darwin* (New York: W.W. Norton & Company, 1991), 400.

[151] Lubbock, *Pre-historic Times: as Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages*, 2nd ed. (London: Williams and Norgate, 1869 [1865]), 430.

Thus, while it seems that Wilson may have influenced Lubbock's nomenclature and general paradigm of development, there are obvious and profound differences. It is clear that John Lubbock had little appreciation for Wilson's respect for the innate abilities of aboriginal peoples, for principles of environment causation and for episodic notions of progress and degeneration that were central to the latter's developmental model. Rather, although claiming to acknowledge the unity of humanity, Lubbock constructed a single linear model of development up which human types would progress (or not). There was little room for degeneration from a past greatness: '[t]hat our earliest ancestors could have counted to ten is very improbable,' he argued, 'considering that so many races now in existence cannot get beyond four.'[154] Applying the 'great principle of natural selection,' Lubbock agreed with Herbert Spencer that there was 'a constant progress toward a higher degree of skill, intelligence, and self-regulation—a better co-ordination of actions—a more complete life.'[155] Of course this general path was selective; those societies which failed the tests of natural selection were denied a place on the ladder of progress and subject to the authority of more 'developed' peoples.

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[152] Lubbock, *Pre-historic Times*, 519-20, 586, 594.

[153] Lubbock, *Pre-historic Times*, 146.

[154] Lubbock, *Pre-historic Times* 585; and Trigger, *Sociocultural Evolution*, 66-68.

Placed within the context of much late nineteenth-century anthropological thought, even the inconsistent Wilson emerges as a decidedly liberal figure. This observation arises from many facets of his eclectic intellectual interests. Wilson's belief in a single creation emphasized the innate abilities of all human groups to at least some extent, and ultimately argued for the inclusion of environmental factors with biological ones in the understanding of episodic patterns of cultural evolution. In addition, while he also placed emphasis upon cranial collection and interpretation, much of this work reflected the Victorian obsession with classifying nature and bordered upon early investigations into physical anthropology. In this view, Wilson avoided grossly materialistic interpretations of human abilities, including the popular phrenological movement of his Edinburgh youth and other like-minded deterministic conclusions based solely on human crania size and shape. In contrast to the British anthropologist John Lubbock—the most obvious and necessary figure for comparison—Wilson emphasized episodic notions of progress and degeneration that recognized the possible existence of past great indigenous societies, and the role of environmental factors in the march toward 'civilization.' However, the popularity of Lubbock as a seminal figure in the origins of the prehistoric movement far exceeded that of Wilson, and it is obvious that Lubbock's depiction of 'savage' society and a linear model of development that permanently assigned inferior status to nineteenth-century Natives gained currency in the late nineteenth century. A.F. Hunter optimistically noted that on the semi-centennial of the publication of Wilson's *Prehistoric Man* it was difficult to recall any other book save Darwin's *On the Origin of Species* that had had as many successors 'bearing the same title ... or one very similar.'[156] However, if its title was often appropriated, its content was not, and, as Alice Kehoe notes perceptively, *Prehistoric Man* was not the work for which late Victorian society had waited.[157]

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[155] Lubbock, *Pre-historic Times*, 600-1.

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[156] A.F. Hunter, 'The Semi-Centennial of "Prehistoric Man,"' *The University Monthly* 13 (1912-1913): 20.

[157] Kehoe, *The Land of Prehistory*, 56.

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The 'Progress' of Language:
Horatio Hale and the Limits of Enlightenment Evolution

> That is why it was called Babel—because there the Lord confused the language of the whole world. From there the Lord scattered them over the face of the whole earth.
>
> Genesis 11:9

> The only satisfactory evidence of the affiliation or direct relationship of two communities, apart from authentic historical records, is to be found in their speech.
>
> Horatio Hale[1]

In 1847 before the ethnological subdivision of the British Association for the Advancement of Science, Friedrich Max Müller made his intellectual debut in Britain arguing that it was 'taken for granted' that comparative philology 'would in the future be the only safe foundation for the study of anthropology.'[2] To some in the nineteenth century, Müller's argument was not farfetched and perhaps even seemed obvious. In arguing for comparative philology as a form of prehistoric anthropology, Müller was drawing upon a lengthy tradition that equated linguistic and biological origin.[3] In particular, Müller partially affirmed an intellectual context established by James Cowles Prichard, the prominent Bristol ethnologist and physician who had reconciled current anthropological insights in comparative anatomy with traditional biblical anthropology, most obviously by subordinating physical anthropology to philological approaches to culture. As perhaps the most versatile anthropologist in the early nineteenth century, Prichard integrated language and biology to establish an ethnological tradition in which linguistic relations were evidence of racial affinity. Prichard's influence was profound, and he was ordained as 'the founder of modern anthropology' by none other than E.B. Tylor;[4] however, by the 1850s in Britain the Prichardian paradigm was under attack, and his programme would soon be subsumed by physical anthropology and the cultural evolutionists.[5] In English Canada, the philological tradition as embodied by Horatio Hale perhaps held less currency than elsewhere in the North Atlantic triangle. However, drawing upon an international community of scholars, Hale eschewed linear interpretations of human development in favour of a cladistic metaphor in which linguistic ethnology was the most sure means of tracing the human path.

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[1] Horatio Hale, *Indian Migrations as Evidenced by Language: Comprising the Huron-Cherokee Stock: the Dakota Stock: the Algonkins: the Chahta-Muskoki Stock: the Moundbuilders: the Iberians* (Chicago: Jameson & Morse, 1883), 1. This paper was originally presented before the American Association for the Advancement of Science, held in Montreal in 1882 and was reprinted in the *American Antiquarian and Oriental Journal*. See idem, 'Indian Migrations as Evidenced by Language [abstract],' *Proceedings of the American Association for the Advancement of Science* 31 (1882): 578-79; and idem, 'Man and Language; or, the True Basis of Anthropology,' *American Antiquarian and Oriental Journal* 15, no. 1 (1893): 15-24, and continued in the three subsequent issues.

[2] Cited in Stocking, *Victorian Anthropology*, 58.

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[3] Within the Judeo-Christian tradition, for example, there had originally been one language and race prior to the disobedience at Babel. Thereafter, language had become confused and, in some racial interpretations, the sons of Ham had migrated to Africa where they were distinguished as much by race as by language.

[4] E.B. Tylor, 'Anthropology,' in *Encyclopedia Britannia*, 9th ed.; cited in George W. Stocking, Jr., 'From Chronology to Ethnology: James Cowles Prichard and British Anthropology 1800-1850,' in *Researches in the Physical History of Man*, by James Cowles Prichard (Chicago: University of Chicago Press, 1973), x.

[5] My discussion on Prichard draws from Stocking, *Victorian Anthropology*, 46-77; and idem, 'From Chronology to Ethnology,' ix-cx.

Horatio Hale and the Enlightenment Tradition

In a paper presented before the American Association for the Advancement of Science, Horatio Hale argued that there could be no satisfactory science of humanity until the scientific community got rid of the delusion 'that the particular race and language which we happen to claim as our own are the best of races and languages.'[6] Hale's paper, which provided anthropological and ethnological evidence for the superior intellect and character of the Iroquois, revealed two significant ideological positions. First, and most obvious, Hale rejected teleological assumptions that immediately designated 'prehistoric' or non-European peoples as 'primitive' specimens characterized by feeble intellect and inferior civilization; and second, Hale drew attention toward language and the discipline of philology as a principal component in the development of Victorian-Canadian anthropological thought. Exploration into language, Hale argued, was as fundamentally important for philological science as the origin of species was for biology, and it was in fact upon the former problem that the whole progress and future of anthropology depended.[7] Indeed, in a letter to Franz Boas, Hale recoiled at the notion advanced by some that there was no such science as ethnology, insisting instead 'that there is such a science, and that its basis is language.'[8]

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[6] Horatio Hale, 'A Lawgiver of the Stone Age,' *Proceedings of the American Association for the Advancement of Science* 30 (1881):341.

Born in Newport, New Hampshire in 1817, Hale trained as a philologist under Albert Gallatin at Harvard, graduating in 1837 complete with a reputation as a brilliant student and accomplished ethnologist and philologist.[9] Following graduation, Hale was appointed the philologist to the United States Exploring Expedition to the Pacific, headed by Captain John Wilkes from 1838 to 1842.[10] Hale's five-year journey to the

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[7] Horatio Hale, 'The Origin of Languages and the Antiquity of Speaking Man,' *Proceedings of the American Association for the Advancement of Science* 35 (1886): 5; Horatio Hale, *Indian Migrations*, 1; and Rev. Father A.G. Morice, 'The Use and Abuse of Philology,' *Transactions of the Canadian Institute* 6 (1898-1899): 84-85.

[8] Horatio Hale to Franz Boas, 27 November 1887; and Hale to Boas, 9 November 1881. Boas Professional Papers, American Philosophical Society, Philadelphia.

[9] For biographical material on Hale see William N. Fenton, 'Horatio Hale,' in Hale's *The Iroquois Book of Rites*, ed. William N. Fenton (Toronto: University of Toronto Press, 1963 [1883]): vii-xxvii; ibid, 'Hale, Horatio Emmons,' in *Dictionary of Canadian Biography* (Toronto: University of Toronto Press, 1990), vol. 12: 400-3; Walter Hough, 'Hale, Horatio Emmons,' *Dictionary of American Biography* (New York: Charles Scribner's Sons, 1932), vol. 12: 104-5; Jacob W. Gruber, 'Horatio Hale and the Development of American Anthropology,' *Proceedings of the American Philosophical Society* 3, no.1 (1967): 5-37; 'Decease of Members,' *Proceedings of the Royal Society of Canada* 3 (1897): vi-viii; Fred C. Sawyer, 'Horatio Hale,' in *Ethnography and Philology* by Horatio Hale (Ridgewood, NJ: The Gregg Press, 1968 [1848]), n.p.; and W. Stewart Wallace, 'Hale, Horatio,' *The Macmillan Dictionary of Canadian Biography*, 3rd ed. (Toronto: Macmillan, 1963): 292.

[10] On the Wilkes Expedition, see Barry Joyce, *The Shaping of American Ethnography: The Wilkes Exploring Expedition, 1838-1842* (Lincoln: University of Nebraska Press, 2001); Michael Mackert, 'Horatio Hale and the Great U.S. Exploring (continued...)

South Pacific and the Northwest coast of America supplied him with a prodigious amount of linguistic and ethnographic data, some of which appeared in his massive *Ethnography and Philology* (1846). This volume—which dealt with topics as diverse as the migrations of Oceanic tribes, comparative grammars of aboriginal tribes, and the ethnography of the Pacific Northwest—established Hale's reputation as a philologist and ethnologist. Marriage to a Canadian, Margaret Pugh, and a subsequent inheritance brought Hale to Clinton, Ontario, where he practiced law and after a time continued his ethnological research. Hale's lengthy stay in Canada was largely unintentional: writing to L.H. Morgan in 1869 some fourteen years after arriving in Clinton, Hale pondered that he had originally thought that his Canadian journey 'would only occupy a short time.' Life had become so settled in Clinton, however, 'that though every year proposing to return [to the United States] I have not yet been able to get away.'[11] Hale's isolation from his previous intellectual world was palpable: he had left many of his books in Philadelphia, confiding to Morgan that he 'had become somewhat rusted in philological studies, though [he] still [devoted] to them some spare time here and in occasional visits

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[10](...continued)
Expedition,' *Anthropological Linguistics* 36, no. 1 (1994): 1-26; and William Stanton, *The Great United States Exploring Expedition of 1838-1842* (Berkeley: University of California Press, 1975).

[11] Horatio Hale to Lewis Henry Morgan, 29 November 1869. L.H. Morgan Collection, Rush Rhees Library, University of Rochester.

to the libraries of New York and Philadelphia.'[12] Nevertheless, as with Daniel Wilson, residence in Canada provided many research opportunities, albeit in a delayed fashion. Following the completion of his expedition volume and his move to Canada, Hale took a lengthy hiatus from serious ethnological work, returning to the discipline only in the 1870s to work among the Iroquois before concluding his career as a supervisor for Franz Boas under the rubric of the British Association for the Advancement of Science's 'Committee to Investigate the North-Western Tribes of Canada.'

In Hale's training as an ethnologist he was profoundly influenced by Albert Gallatin and his approach toward anthropological and philological issues. Gallatin was born in Geneva, Switzerland, in 1761 before immigrating to the United States in 1780. His eclectic career included stints in various governmental offices in the United States and abroad before his interests turned toward ethnology in the last years of his life.[13] The establishment of the American Ethnological Society in 1842, with Gallatin as its founder and first president, both provoked and reflected the intellectual debates over human origins and development in mid-century America. The institutional confines of the American Ethnological Society proved to be fertile ground for anthropological theory and various and divergent positions were put forward. Among notable contributors, Henry Rowe Schoolcraft argued that ethnological data provided evidence that primitive peoples were not representatives of an early stage of development, but rather degenerative offspring of an earlier and more advanced civilization. In a much different vein, Alexander Bradford, a lawyer and author of *American Antiquities and Researches into the Origin and History of the Red Race* (1841), maintained that whatever progress the 'primitive' peoples of the New World attained was a function of the diffusion of more 'civilized' tendencies from the Old. Finally, Daniel Wilson's intellectual foe, Samuel G. Morton, used the Society as a forum for his polygenetic views that explained primitivism as innate inferiority rather than a society's lack of progress.[14] Gallatin took issue with all these views. In *Notes on the Semi-Civilized Nations of Mexico, Yucatan, and Central America* (1845), Gallatin established the principal tenets of his ideological position: while Native culture and language were to be largely considered 'primitive,' they were not innately inferior and could 'improve' themselves, provided that suitable environmental conditions existed.[15] Indeed, in his lengthy introduction to Hale's 'Indians of North-West America, and Vocabularies of North America,' Gallatin maintained that an examination of the 'social state of the aborigines of America is an important leaf in the history of Man' since it made it possible 'to ascertain the progress which a people may make, when almost altogether insulated, and unaided by more enlightened nations.'[16]

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[12] Horatio Hale to Lewis Henry Morgan, 29 November 1869. Also see Hale to Morgan, 25 October 1875. L.H. Morgan Collection, Rush Rhees Library, University of Rochester.

[13] For biographical information on Gallatin, see Percival Hall, 'Albert Gallatin,' *Dictionary of American Biography* (New York: Charles Scribner's Sons, 1931), VII: 103-9; Robert Bieder, 'Albert Gallatin and the Survival of Enlightenment Thought in Nineteenth-Century Anthropology,' in *Toward a Science of Man: Essays in the History of Anthropology*, ed. Timothy H.H. Thoresen (The Hague: Mouton Publishers, 1975), 91-98; and Bieder, *Science Encounters the Indian*, chapter 2.

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[14] Bieder, 'Albert Gallatin and the Survival of Enlightenment Thought,' 95.

[15] Bieder, 'Albert Gallatin and the Survival of Enlightenment Thought,' 95; and Patterson, *A Social History of Anthropology*, 22.

The influence of Gallatin's Enlightenment evolution had a profound impact upon Hale and is apparent in his development as an ethnologist and philologist.[17] A shared commitment toward Enlightenment principles urged Hale toward recognizing the innate potential and achievement of aboriginal peoples. In a lecture before the American Association for the Advancement of Science held in Montreal in 1882, Hale praised Native American languages for their 'fulness of expression and grasp of thought, [as] ... evidence of the mental capacity of those who speak them.'[18] Scholars who pointed toward the majesty of Sanscrit or Greek would be no less impressed with the 'ingenious structure' of the Iroquois with its nine tenses, three moods and active and passive voices.[19] Hale drew support for such a position from an international community of scholars: in a series of letters to Hale, the famous German philologist Max Müller concurred, noting that the Mohawk language provided ample evidence that these Natives were 'powerful reasoners and accurate classifiers,' and argued that philological research into aboriginal languages would tell as much about 'the growth of the human mind as Chinese, Hebrew, or Sanscrit.'[20] On another occasion, Müller responded that 'I read your account ... with great interest.... What is quite clear to me is the high state of civilization reached by these so-called Savages before they came in contact with so-called civilized men... .'[21]

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[16] Albert Gallatin, "Introduction to 'Hale's Indians of North-West America, and Vocabularies of North America,'" *Transactions of the American Ethnological Society* 2 (1848): xcvii.

[17] This study principally examines Hale's mature anthropological thought as evidenced during his ethnological renaissance a dozen or so years after his move to Canada in 1856. For insights into Hale's earlier ethnography see Joyce, *The Shaping of American Ethnography, passim*; Mackert, 'Horatio Hale and the Great U.S. Exploring Expedition,' 1-26; and Stanton, *The Great United States Exploring Expedition*, 374-77.

[18] Horatio Hale, *Indian Migrations*, 3; idem, 'Indian Migrations as Evidenced by Language,' 578-79; and idem, *The Iroquois Book of Rites*, ed. William Fenton (Toronto: University of Toronto Press, 1963 [1883]), chapter 10.

While Hale generally had a pleasant relationship with Daniel Wilson and other prehistorians who emphasized material considerations in tracing the progress of civilization, he had open contempt for a methodology that based its conclusions upon cranial measurements, material remains, or even cultural habits.[22] 'To measure human

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[19] Hale, *Indian Migrations as Evidenced by Language*, 3.

[20] Hale, *Iroquois Book of Rites*, 99-100; and idem, 'Language as a Test of Mental Capacity,' 92. Also see Georgina Max Müller, ed., *The Life and Letters of the Right Honourable Friedrich Max Müller*, 2 vols. (London: Longmans, Green, and Co., 1902), II: 117-18. Letter from Müller to Hale dated 14 February 1882.

[21] Georgina Max Müller, ed., *Life and Letters*, II: 180-81. Letter from Müller to Hale dated 18 May 1885.

[22] For Hale's admiration for Daniel Wilson see Horatio Hale, 'Sketch of Sir Daniel Wilson,' *The Popular Science Monthly* 44 (1893): 256-65. The feelings were likely mutual. Writing in his diary, Wilson noted that 'Alfred Russell Wallace lunched with me today, and with him my good friend Horatio Hale and Dr. McCurdy.' Daniel

(continued...)

bodies and human bones,' he argued, '— to compute the comparative numbers of blue eyes and black eyes in any community,—to determine whether the section of human hair is circular, or oval, or oblong,—to study and compare the habits of various tribes on man, as we would study and compare beavers and bees,—these are tasks which are comparatively simple.'[23] The emerging disciplines of physical and cultural anthropology were, therefore, viewed as imprecise and even misleading areas of study in any attempt to understand the evolution of past and present humanity. Nineteenth-century social evolutionists maintained that the first people who spoke an Aryan language were barbarous nomads who wandered the highlands of central Asia. Yet Hale noted that the 'earliest products of Aryan genius,' clearly apparent 'in the Vedas, the Zend-Avesta and the Homeric songs,' illustrated 'that these wandering barbarians may have had minds capable of the highest efforts to which the human intellect is known to have attained.' It was only language that attested to their achievement. If, by chance, these people had been 'swept ... from the earth,' no trace save a few flint implements or shrouds of pottery would have been left to attest to their genius.[24] Instead, while acknowledging that the origin of languages was one of the most mysterious scientific problems facing linguistic

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[22](...continued)
Wilson, 'Daniel Wilson Journal [typescript],' 11 March 1887. John Langton Family Papers, University of Toronto Archives.

[23] Horatio Hale, 'Language as a Test of Mental Capacity,' *Transactions of the Royal Society of Canada* 9 (1891): 80-81.

[24] Hale, 'A Lawgiver of the Stone Age,' 324.

investigators, Hale argued that philology provided a purer path toward this goal. Drawing upon a community of scholars that included Gallatin, Müller and Peter Duponceau, Hale made a twofold argument: first, that linguistic ethnology was the only certain test of affinities of race; and second, that it provided the surest test of mental capacity.[25] As evidence Hale argued that language varies little through the influences of climate while physical characteristics could vary widely and rapidly from this cause. Thus, Aryan languages displayed an internal consistency from ‘Hindostan to Iceland’ while the physical differences of peoples in these areas obviously varied enormously.[26] Drawing purposely upon what he knew some would regard as a ‘vulgar’ example, Hale explored the origins of the African American population in the United States and the Caribbean. Perhaps sensing that the philological aspects of anthropological study were in decline, Hale contended on the basis of linguistic evidence that African Americans in the United States and West Indies were in fact of Aryan stock. As he noted, the ‘only reason [to deny this fact] ... is the sentiment that the negroid African stand on a lower intellectual grade.’[27] Not only did linguistic evidence point toward common origins, but it illustrated a superior intellectual standing, ‘for the character of these [African] tongues evinces a high intellectual capacity in the people who speak them.'[28] Indeed, he suggested that despite the best efforts of material anthropologists, the interpretative power of philology was so pronounced that the racial identity of 'extinct' populations such as the River-drift man, or the North American mound builders would be totally unknown until elements of their language were ascertained.[29]

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[25] Hale, ‘Language as a Test of Mental Capacity,’ 78; and Morice, ‘Use and Abuse of Philology,’ 84.

[26] Horatio Hale, ‘Race and Language,’ *The Popular Science Monthly* 27 (1888): 347-48. Hale originally delivered this paper at the American Association for the Advancement of Science in 1887 under the title ‘The True Basis of Ethnology.’

[27] Hale, ‘Language as a Test of Mental Capacity,’ 79.

The Progress of Language

Hale's attachment to philology as the key anthropological discipline had profound implications for his interpretation of prehistory and ethnography. If physical anthropology was ultimately an unreliable guide to the prehistoric past, ethnological linguistics provided more certain responses to the 'burning questions' regarding the origin of languages and the antiquity of speech. The origin of language, in particular, was of such importance that 'the progress and the future of the whole "Science of Man"... may be said to depend,' for in it lay the answer to 'the all-important question whether the human race belongs to many species or to only one.'[30] Considering Hale's formative education was with Gallatin at Harvard during a era in which the specter of polygenesis had obvious ideological and political consequences, it is not surprising that he saw this as the crucial question of anthropological research and concluded that linguistic evidence pointed toward the common origins of humanity.[31] In addition to providing evidence counter to the polygenist claim, he contended that it was language that provided both the crucial distinction between human and animal and even justified the existence of the separate discipline of anthropology. If 'man is merely an animal,' Hale asked rhetorically, 'why should he claim a whole main department of science to himself, and not be content with his modest "subsection" along with the birds, the insects, the vegetables, and the other members of the great biological section?'[32] The answer was easily evident:

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[28] Hale, 'Language as a Test of Mental Capacity,' 79.

[29] Hale, 'Race and Language,' 349.

[30] Hale, 'Origin of Languages,' 5.

> Anthropology begins where mere brute life gives way to something widely different and indefinitely higher. It begins with that endowment which characterizes man, and distinguishes him from all other creatures. The real basis of the science is found in articulate speech, with all that this indicates and embodies.[33]

The evolution of language was not gradual, therefore, but burst forth suddenly and fully mature as a distinguishing mark of the human genius. Hale noted that archaeological research had traced humanity to a remote era, perhaps locating its origins several hundreds of thousands of years in the past. However, while the antecedents of humanity were ancient, speech was not, and it was only the advent of the latter that announced the arrival of contemporary humanity. Thus, the speechless River-drift man was an intermediary between 'man and ... monkey' and not fully human. Within this evolutionary continuum, Hale argued that at some point in the post-glacial evolutionary process 'the greater development of the cerebral convolution in which the faculty of language resides' had produced speaking children to non-speaking adults.[34] It was at this point that physical anthropology seemed to support Hale's theory of linguistic development. Hale lauded the findings of Paul Broca and others who concluded that Cro-Magnon man had a brain capacity of 1590 cubic centimeters, some 119 centimeters larger than that of the nineteenth-century Parisian.[35] Moreover, Cro-Magnon was seen to have appeared suddenly in its mature manifestation, a fact which seemed to confirm the recent development of language in its full form.

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[31] Similarly in Britain, J.C. Prichard argued that one of the principal objectives of ethnology and philology was to disprove polygenesis. See J.W. Burrow, 'The Uses of Philology in Victorian Britain,' in *Ideas and Institutions of Victorian Britain: Essays in Honour of George Kitson Clark*, ed. Robert Robson (London: G. Bell & Sons, Ltd., 1967), 189-90.

[32] Hale, 'Language as a Test of Mental Capacity,' 77.

[33] Hale, 'Language as a Test of Mental Capacity,' 112.

The sudden appearance of mature 'man' did not indicate multiple beginnings. In contrast to Abel Hovelacque who argued for a multiplicity of irreducible linguistic systems in which the faculty of speech was acquired in many places, Hale and Max Müller maintained that language had sprung in adamic fashion from a single pair.[36] Drawing from a pre-Darwinian cladistic or branching metaphor, Hale envisioned some two or three hundred language groups emerging from a common stem: most notably, from the most ancient language spoken somewhere in the Middle East, one could trace three language families, the Hamito-Semitic, the Aryan, and the Ural-Altaic.[37] Each of these families, in turn, had been the parent of subsequent linguistic variants.[38] This pattern was replicated elsewhere, and in North America the Sahaptin (spoken by the Nez Percés) and the Algonkin families assumed the seminal role of the Aryan or Semitic tongues, both giving birth to a wide variety of distinct languages. Both were languages of a 'superior stamp' whose speakers were 'endowed with at least equal genius [to those of Aryan speech].' The Algonkin language gave birth to over twenty languages stretching from Nova Scotia to the Rocky Mountains including 'the Lenâpé (or Delaware), the Micmac, the Massachusetts, the Mohegan, the Ojibway, the Cree, the Miami, [and] the Blackfoot' all of which were 'remarkable for their abounding inflections, their subtle distinctions, their facility of composition, and their power of expressing abstract ideas.'[39]

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[34] Hale, 'The Origin of Languages,' 42.

[35] Hale, 'The Origin of Languages,' 37.

[36] Hale, 'The Development of Language,' 92.

This description of early speaking humanity stood in contradistinction to the progress of language envisioned by the evolutionary anthropologists. Upon returning from Newfoundland, T.G.B. Lloyd suggested to the Royal Anthropological Institute that philology may be of some use in 'comparing the affinities of the language [of one group] with those of other Indian tribes, and thus enable him to deduce therefrom the probable connection between the different races... .' Significantly, however, Lloyd also drew immediate attention to 'the emphatic warning' given by T.H. Huxley, who argued that it must not be forgotten that 'community of language testifies to close contact of race between the people who speak the language, but to nothing else.'[40] According to Huxley, language could not provide evidence of racial affinities and, in any case, Lloyd lamented that he had been informed that 'the language of the Beothucs was unknown [even] amongst the Canadian Indians.'[41] Moreover, evolutionary anthropologists such as E.B. Tylor and L.H. Morgan had constructed a unidirectional and progressionist scheme that depended vitally upon the comparative method which necessarily demanded that humanity's earliest examples of reason, knowledge and language be designated as primitive. Although Hale found much to admire in Morgan's *Ancient Society* (1877), he protested that it presented too barbarous a view of early humanity. Reacting to Morgan's

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[37] Hale, 'Origin of Languages,' 45. On the use of the cladistic metaphor in nineteenth-century linguistics, see Rulon S. Wells, 'The Life and Growth of Language: Metaphors in Biology and Linguistics,' in *Biological Metaphor and Cladistic Classification: An Interdisciplinary Perspective*, ed. Henry M. Hoenigswald and Linda F. Wiener (Philadelphia: University of Pennsylvania Press, 1987), 39-80.

[38] See Figure 2.1.

[39] Hale, 'The Development of Language,' 122-23.

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[40] T.G.B. Lloyd, 'On the "Beothucs," a Tribe of Red Indians, Supposed to be Extinct, Which Formerly Inhabited Newfoundland,' *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 4 (1874-1875): 36.

[41] Lloyd, 'On the "Beothucs,"' 39.

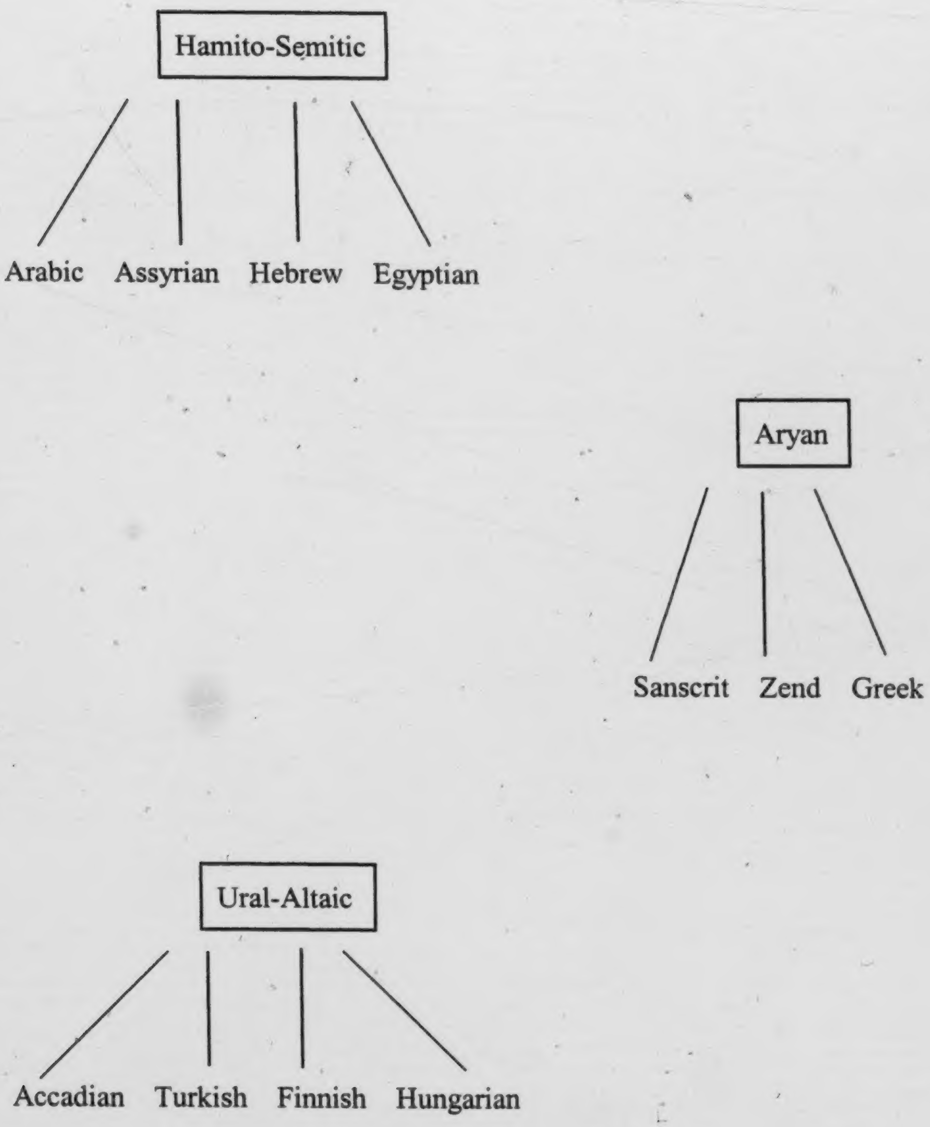
Hamito-Semitic
Arabic
Assyrian
Hebrew
Egyptian
Aryan
Sanscrit
Zend
Greek
Ural-Altaic
Accadian
Turkish
Finnish
Hungarian

Figure 2.1: Early Linguistic Families in the Middle East and Beyond

Source: Hale, ‘The Origin of Languages,’ 45.

infamous contention that early humanity was overtly promiscuous, Hale responded:

> My own view, I must frankly say, is that man has always been a 'pairing animal.' I cannot persuade myself that he began his social life in promiscuous intercourse—far below most of the brutes—and only by slow degrees and after ages of progress attained to the level of the tiger, the swallow, and the chimpanzee.[42]

The developmental model of the cultural evolutionists exerted a powerful influence: even Charles Lyell, who hardly could be classified as an evolutionary anthropologist, argued that when humanity first developed the capacity for speech it consisted of only a few monosyllabic roots; different languages developed only when those who spoke this primitive and half-formed language were scattered and their imperfect speech evolved into more mature forms.[43] More germane were the findings of Charles Hill-Tout, an outspoken convert to Darwinian evolution, who reacted to the contention that humanity 'started on his career fully equipped with a ready-made and to a certain extent perfect medium for the communication of his wants and thoughts.' Such thinking was clearly in error, for the 'majority of the most eminent of modern philologists' held that 'there was a time when man was as destitute of language—*i.e.*, articulate speech as a medium for the communication of his wants and thoughts—as the dog... .'[44]

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[42] Horatio Hale to L.H. Morgan, 30 December 1878. L.H. Morgan Collection, Rush Rhees Library, University of Rochester.

[43] Charles Lyell, *The Geological Evidences of the Antiquity of Man, with Remarks on Theories of the Origin of Species by Variation*; cited in Hale, 'The Origin of Languages,' 6.

In distinct contrast to the model of development proposed by evolutionary anthropologists, Hale argued that language and culture were not directly related and that 'to talk of "barbarous languages" is as absurd as it would be to talk of barbarous complexions, barbarous hair, or barbarous lungs.'[45] The efforts of early speaking humanity were not characterized by 'a mere mumble of disjointed sounds, framed of interjections and of imitations of the cries of beasts and birds.'[46] Rather, the capacity for linguistic genius appeared fully formed. Drawing explicitly from Max Müller, Hale noted 'the important truth, that the mold of each linguistic stock bears evidence of having been formed at once for all time.'[47] The root of this erroneous conception of early language lay at the feet of Darwin: in a series of lectures at the Royal Institute in 1873, Max Müller attacked Darwin's philosophy of language.[48] Humanity, according to Darwin, did not have a unique innate propensity toward language that was denied other creatures. Instead, Müller noted that

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[44] Charles Hill-Tout, 'The Study of Language,' *Proceedings of the Canadian Institute* 5 (1886-1887): 169-70.

[45] Hale, 'Language as a Test of Mental Capacity,' 80.

[46] Hale, 'The Origin of Languages,' 47.

[47] Hale, 'The Development of Language,' 100.

[48] Burrow, 'The Uses of Philology,' 200-1. On Müller's response to Darwinian evolution see Elizabeth Knoll, 'The Science of Language and the Evolution of Mind: Max Müller's Quarrel with Darwinism,' *Journal of the History of Behavioral Sciences* 22, no. 1 (1986): 3-22; and Gregory Schrempp, 'The Re-Education of Friedrich Max Müller: Intellectual Appropriation and Epistemological Antinomy in Mid-Victorian Evolutionary Thought,' *Man* 18, no. 1 (1983), especially 99-102.

> [i]f ... we say that, under favourable circumstances, an unknown kind of monkey may have learnt to speak, and thus, through his descendants, have become what he is now, viz. man, we deal in fairy-stories, but not in scientific research. Mr. Darwin says, 'Language is certainly not a true instinct, as every language has to be learnt.' Yes, every language has to be learnt, but language itself, never.[49]

Likewise, Hale noted that the doctrine of evolution had 'been strangely misapplied' in creating the image of the brutish savage who acquired language as a mere response to external stimuli rather than through the creative genius of the human mind.[50] Yet Hale was more sympathetic to evolutionary theory than Müller, and took some solace that Darwin had toward the end of his life reversed his opinion on the low intellectual and moral character of the Fuegians.[51] This reversal, by extension, raised the standing of all 'savages' since the Fuegians had 'always been ranked among the lowest of the low.'[52]

Within the philologists' cladistic metaphor there existed the possibility for both progress and degeneration of language and culture. The capacity to progress or decline in the rudiments of civilization, however, was an identifiable human characteristic.

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[49] Max Müller, 'Lectures on Mr. Darwin's Philosophy of Language,' *Fraser's Magazine* 8, no. 43 (July 1873): 21

[50] Hale, 'The Development of Language,' 127; and idem, 'Language as a Test of Mental Capacity,' 79-80, 83.

[51] In the mid-century debate between polygenesis and monogenesis, Hale credited Darwinian evolution as the principal factor in the defeat of the theory of multiple origins. See Hale, 'Language as a Test of Mental Capacity,' 93; and idem, review of *Studies in Ancient Marriage, Comprising a Reprint of Primitive Marriage*, by John Ferguson McLennan, *Science* 8, no. 202 (17 December 1886): 570.

[52] Hale, 'The Development of Language,' 127.

Lacking the essential linguistic prerequisites, River-drift man was also marked by its inability to evolve its culture. Wherever 'traces of the River-drift men have been discovered, whether in France, England, Greece, Asia Minor, India, North Africa, or America, these traces ... are everywhere the same, showing no variety in different regions, and no apparent improvement during the lapse of ages.'[53] It was only with the advent of speech in the post-glacial era that the capacity for advance and decline appeared. This was most clearly observed in the 'so-called inferior races.'[54] These races—typically aboriginal groups and, at the 'lowest level' the Australian indigene—were not modern representatives of prehistoric humanity. Instead, Hale preferred to see Cro-Magnon as the earliest known representative of humanity; when the nineteenth-century western eye compared Cro-Magnon to the Australian aboriginal the degeneration of culture was easily apparent. This decline was entirely due, Hale maintained, to the unfavourable influence of the environment: 'The nature of their country, the scantiness of food, and the frequent droughts ... [made] all progress ... impossible.' As Hale cautioned, even the wisest Aryan and Semitic community cast into a similar environment 'would speedily be pressed down by an iron necessity to the same level as that of these Australians.'[55]

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[53] Hale, 'The Origin of Languages,' 36.

[54] Hale, 'The Origin of Languages,' 44.

[55] Hale, 'Language as a Test of Mental Capacity,' 99.

The Limits of Enlightenment Evolution

While Horatio Hale privately encouraged missionaries in their task of converting Canada's aboriginal population to western religion and culture, he felt little personal compulsion to proselytize the nearby Iroquoian community. In his communication with John Maclean, one of his principal correspondents, he expressed concern over reported cruelty toward women among the Blackfoot and anticipated that the 'change [that] you look for under the influence of Christian teaching will not be long in coming' in the missionary's dealings with the Blood tribe.[56] However, there is little indication in Hale's other writings or correspondence of a profound concern with the spiritual regeneration of Native people or any other group. Rather, like the ambitions of so many anthropologists', Hale's interest in missionary work was primarily concerned with scientific objectives.[57] His emphasis upon linguistics and his continued residence in Clinton forced Hale to rely upon the labours of missionaries: while anyone could measure bones and bodies, the complex task of acquiring a new language and gathering linguistic evidence meant that science was indebted 'to the enlightened and indefatigable efforts of missionary zeal.'[58] To this end, Hale sought to develop relationships with missionaries who could provide him with anthropological evidence. In particular, Hale developed relationships with two men: Edward F. Wilson, who had left Henry Venn's Church Missionary Society in 1873 to found a series of residential schools for Natives in southern Ontario; and John Maclean, a Methodist missionary for many years to the Blood tribes of the southern prairies.[59]

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[56] Horatio Hale to John Maclean, 16 December 1885. United Church of Canada/Victoria University Archives. Box 1, File 2. Compare this, however, with Hale's contention that the harsh treatment of women in 'savage' tribes was 'based on error' and largely a product of environmental factors. Hale, 'Language as a Test of Mental Capacity,' 88-89.

[57] Also see Daniel Wilson, 'Science in Rupert's Land,' *The Canadian Journal of Science, Literature and History* 7, no. 40 (1862): 340; and Gallatin, 'Introduction to "Hale's Indians of North-West America,"' cxix.

Although Hale was not burdened or blessed with a desire to transform aboriginal souls to the extent of his missionary correspondents, E.F. Wilson and John Maclean vicariously shared his Enlightenment principles, particularly regarding the role of the environment as a determinant of human behavior and in subscribing to the innate abilities of aboriginal people. While Wilson's earlier work, *A Manuel of the Ojebway Language* (1874), reflected traditional nineteenth-century missionary concern, the Riel rebellion of 1885 had disillusioned him with the policies of cultural replacement and urged him toward the anthropological writings of Hale and others.[60] As a reflection of his increased interest in ethnological issues, Wilson founded two short-lived journals,

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[58] Hale, 'Language as a Test of Mental Capacity,' 80-81; and Horatio Hale to John Maclean, 7 September 1885. United Church of Canada/Victoria University Archives. Box 1, File 2.

[59] For biographical information on E.F. Wilson and John Maclean see David Nock, *A Victorian Missionary and Canadian Indian Policy: Cultural Synthesis vs Cultural Replacement* (Waterloo, ON: Wilfrid Laurier University Press, 1988); and James Nix, 'John Maclean's Mission to the Blood Indians, 1880-1889,' (unpublished MA thesis, McGill University, 1977).

[60] Nock, *A Victorian Missionary*, 101-4.

Our Forest Children (1887-1890) and the more anthropologically orientated *The Canadian Indian* (1890-1891). Rather than exhibiting prehistoric traits, the first issue of *The Canadian Indian* noted that Native people possessed the same 'diversity of endowment and the same high order of talent' as other races, lacking only the 'touch of culture' and 'favouring opportunity' that would allow their cultures to flourish.[61] Making direct allusion to Hale's argument that North American Natives were superior in actual capacity and ability to the Aryan ancestors of contemporary Europeans, Wilson argued that the Mohawk tribes were never a 'wild people' but from time immemorial exhibited the habits of agrarian and settled civilization.[62] Wilson's correspondence with Hale and John Wesley Powell, author of *Introduction to the Study of Indian Languages* (1880) and director of the Smithsonian's Bureau of American Ethnology, encouraged his long-held philological interests which he hoped would ultimately provide a route both to Christian revelation and to the origin of the Native tribes of Canada.[63] As E.F. Wilson traced the origin of Canada's aboriginal population the cladistic metaphor characteristic of philologists was readily apparent: his studies of the Ojibway convinced him that their language was 'the parent language of dialects, (including even Eskimo) spoken in the North West' from which all other Native languages emerged. Indeed, through a study of comparative grammar of the various tribes one could trace the origin of 'the Red Indian Race' to the other side of the Bering Strait.[64] Consistent with Hale's belief that philology was the purest science, Maclean questioned whether geological evidence would ever provide answers to the question of human origins, and claimed that 'we cannot hope to remove the doubts until philology and tradition have shed more light upon the matter in hand.'[65] Likewise, reflecting some of the respect for environmental factors that was common currency for Hale, Maclean noted that geography and climate 'exert powerful influences in producing a progressive or retrogressive civilization.'[66] In his studies of the American Native, Maclean argued that both their physical, mental and moral development and their attitudes toward Christianity were vitally connected to environmental determinants. Rather than an innate degeneracy, it was the influence of geography and climate and the different types of labour that determined (save for the salvation of certain individuals and the working of the 'Divine Spirit') which tribes would readily receive the Gospel. In articulating such a theory, Maclean determined that it was most likely that the 'artistic tribes' along the west coast would be most receptive and Prairie ones least.[67] These findings were no doubt reinforced by Maclean's own failures among the Blackfoot. James Nix notes that Maclean's mission work resulted in no conversions, societies or church. In his personal journal Maclean lamented '[n]ot a soul saved, and I have been laboring nearly four years in the North West, and still I do not feel I can leave this field of labour.'[68]

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[61] E.F. Wilson and H.B. Small, 'Editorial,' *The Canadian Indian* 1, no. 1 (October 1890): 6.

[62] E.F. Wilson, 'The Mohawk Indians,' *The Canadian Indian* 3, no. 5 (August 1889): 33-35; quotation on page 35. For the most clear expression of Hale's argument that contemporary Natives were superior to the ancient Aryans, thus throwing the evolutionary continuum into disarray, see Horatio Hale, 'A Lawgiver of the Stone Age,' *Proceedings of the American Association for the Advancement of Science* 30 (1891): 324-41.

[63] Avrith, 'Science at the Margins,' 108. For a discussion of the coeval nature of language and religion see John Maclean, 'Language and Religion,' *Transactions of the Canadian Institute* 6 (1898-1899): 273-84.

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[64] E.F. Wilson, 'North West American Indians,' 25 April 1885, MS 212 vol. 5 #465-466, Shinqwauk Letterbooks; cited in Avrith, 'Science at the Margins,' 108.

[65] John Maclean, 'The Destiny of the Human Race: Chapter 2—The Age of the Race [n.d.].' United Church of Canada/Victoria University Archives. Box 28, File 106.

[66] John Maclean [or Mclean], *The Indians of Canada: Their Manners and Customs* (Toronto: William Briggs, 1889), 304; and idem, 'The Destiny of the Human Race—Chapter 1: The Birth of the Race [n.d.].' United Church of Canada/Victoria University Archives. Box 28, File 105.

In spite of their modest attachment to the philological principles articulated by Hale, neither Edward Wilson nor John Maclean was entirely successful in eliminating sometimes contradictory influences. This is not surprising, since the missionary programme of the late Victorian era was imbued with stringent definitions of civilization and progress toward which it urged aboriginal peoples to strive. Despite having a measure of respect for Native achievement and an optimistic assessment of aboriginal abilities, Wilson made it clear that the advance of the Indian toward civilization could only be measured through three tests: the adoption of 'white man's laws,' the education of children, and by a commitment to an agrarian lifestyle.[69] Such definitions were tied neatly to the paternalism and ethnocentrism of racial orderings of societies rather than to Hale's cladistic metaphor which potentially offered a non-teleological explanation of human development. John Lubbock, to cite the most obvious and influential example in the second half of the nineteenth century, drew direct parallels and contrasts between children, the uneducated working class, and 'savages,' all of whom needed the paternal blessing of more civilized peoples.[70] Much like other missionaries and church workers, Wilson saw children as central to the process of 'civilizing' aboriginal people and sometimes conflated a concern for aboriginal youth with the general nature of the indigene: an Indian child, he argued, 'must be led out from the conditions of his birth, in his early years, into the environment of civilized domestic life.'[71] Moreover, the hierarchical and bureaucratic nature of the Shingwauk Residential School was designed to encourage an industrial-capitalist ethos among the Ojibway, thus ensuring that Native boys would not remain proletarian in their new economic environment, but would be able to move up the class ladder.[72] Sadly, the image of the Native as the 'infantile child' persisted even as the short-lived *The Canadian Indian* sputtered toward its final issue. When Natives were reluctant to endorse and attend a meeting held at the Canadian Institute under the auspices of the Canadian Indian Research and Aid Society, Wilson was quick to blame the indigenous population for the failure of the conference and ultimately the journal:

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[67] Maclean, *Indians of Canada*, 318-19. For Maclean's despair over the lack of success of both Protestant and Roman Catholic missionaries on the Prairies, see *Indians of Canada*, 115.

[68] John Maclean, 'Journal, 9 November 1883'; cited in Nix, 'John Maclean's Mission,' 236.

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[69] E.F. Wilson, 'Editorial,' *The Canadian Indian* 1, no. 5 (February 1891): 129.

[70] Peter Rivière, 'Editor's Introduction,' *The Origin of Civilisation and the Primitive Condition of Man*, by John Lubbock (Chicago: University of Chicago Press, 1978 [1870]), xlix; John Lubbock, *Pre-historic Times*, 487, 513, 597; and Trigger, *Sociocultural Evolution*, 67.

[71] E.F. Wilson, 'Indian Training,' *The Canadian Indian* (November 1890), 29; cited in Nock, *Victorian Missionary*, 74.

> I think you [Natives] are a little to blame for not lending your support more freely to a Society and a magazine set on foot, I may say, almost solely for your benefit and advancement... . I think the falling through of the Conference has a good deal to do with the falling through of our Society and of its magazine. The white people say: 'What is the use of trying to help the Indians when they don't try to help themselves, and seem to show so little interest in anything that is done for them?'[73]

As historian Adrian Desmond notes with particular reference to Lubbock and Tylor, the conception of native 'children' who were to be tended by white 'adults' was a particularly useful ideological position in the expansion of the British sense of empire and one that would frequently find footing on Canadian soil.[74]

John Maclean was even more explicit in articulating his confusion between environmental and racial explanations of human development. Despite dedicating his important ethnographic study *The Indians of Canada* (1889) to Horatio Hale,[75] Maclean could not divorce himself from the notion that a progressive continuum of human development existed from the cave-dwellers to a future ideal race marked by a universal language and common faith.[76] Within this continuum, ancient tribes of Picts, Scots, Celts and Gauls occupied a position much lower than the majority of nineteenth-century Native cultures; indeed, Maclean thought that the ancient German tribes and the North American aboriginal might be comparable since both were lovers of liberty as well as the vices of gambling, liquor and gluttony.[77] Nevertheless, Maclean 'optimistically' thought that Native spirituality approximated that of Anglo-Protestant societies a century or so previous and therefore held out hope that conversion and regeneration would inevitably occur.[78] In a harsher critique of Native spirituality, fellow Methodist missionary Egerton Ryerson Young concluded that aboriginal superstitions were 'as severe as any inflicted in the worst regions of India or Africa' and pushed the Canadian indigene further back along the evolutionary continuum to perhaps the ancient Israelites.[79]

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[72] Nock, *Victorian Missionary*, 83.

[73] E.F. Wilson, 'To the Indians,' *The Canadian Indian*, n.d., n.p.

[74] Adrian Desmond, *Huxley* (London: Penguin Books Ltd., 1998), 342. On the correlation of English-Canadian nationalism with the British empire in the late Victorian era, see Berger, *The Sense of Power*.

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[75] See Figure 2.1.

[76] Maclean, *The Indians of Canada*, 124.

[77] Maclean, *The Indians of Canada*, 276-78.

[78] Maclean, *The Indians of Canada*, 73.

[79] Egerton Ryerson Young, *Stories From Indian Wigwams and Northern Campfires* (Toronto: Coles Publishing Company, 1974 [1893]), 80, 82-83; quotation from page 80. E. R. Young's fiction also emphasized the spiritual infancy of the Native. When finally confronted by a missionary Big Canoe, an earnest Ojibway chief,

(continued...)

It is clear that the developmental theories articulated by E.F. Wilson and John Maclean did not find resonance among fellow missionaries. Wilson had made it clear that a subscription list of some 400 was necessary if *The Canadian Indian* was to meet expenses and continue operation; however, despite some modest growth, this number was never realized.[80] As his biographer notes, the limited interest in *The Canadian Indian* indicates that Wilson's policy of cultural synthesis—which recognized the innate value of Native culture—was not popular at a time when racial ideas of cultural replacement dominated.[81] Similarly, John Maclean's reputation as an authority on Native languages and customs earned him little respect with his superiors: after nine years among the Blood tribe he was judged to be an ineffectual missionary and asked to move to another post. In a climate marked by cultural replacement, church historian John Webster Grant notes, Maclean's interest in Native traditions 'was suspect as a kind of looking back towards Sodom.'[82]

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[79](...continued)
proclaims that '[o]ur eyes have been dim with looking and our hearts sad with long waiting, for some help that would satisfy our longing for [spiritual] rest.' Idem, *Children of the Forest; a Story of Indian Love* (New York: F.H. Revell, 1904), 240.

[80] For subscription numbers see *The Canadian Indian* 1, no. 2 (November 1890), 45; ibid, 1, no. 4 (January 1891): 123; ibid, 1, no. 7 (April 1891): 220; ibid, 1, no. 8 (May 1891): 252; and ibid, 1, no. 9 (June 1891): vi.

[81] Nock, *Victorian Missionary*, 7. Nock argues that the dominant Canadian society was not generally accepting of the idea of cultural synthesis until after the controversy of the 1969 White Paper.

[82] John Webster Grant, *Moon of Wintertime: Missionaries and the Indians of*
(continued...)

The apparent antinomy evident in the thought of E.F. Wilson and John Maclean was mirrored by a decline in the influence of linguistic ethnology. While the missionary endeavor with aboriginal languages continued, Hale complained in the early 1890s that over the previous three decades '[w]ith very few exceptions ... eminent men have deliberately put aside the teachings of comparative philology... .'[83] One reason he gave for this shift was that the pursuit of physical anthropology was 'so infinitely the easier' than linguistic research.[84] However, the increased emphasis on physical and cultural anthropology was not merely a reflection of the torpid efforts of late nineteenth-century evolutionary anthropologists. Rather, as Hale obliquely noted in his defence of philology as the purest science, the large majority of naturalists had accepted 'the doctrine of evolution,' complete with its requisite imagery of a 'dumb brute' and 'barbarous languages.'[85] This observation proved astute: although they shared some modest commonality in the determinate influence of the environment, the Darwinian geographer Thomas Griffith Taylor expressed the dominant racial position when he stated 'that all modern classifications consider skull-shape and hair character' to be the

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[82](...continued)
Canada in Encounter since 1534 (Toronto: University of Toronto Press, 1984), 162.

[83] Hale, 'Language as a Test of Mental Capacity,' 77; and Thomas R. Trautmann, 'The Revolution in Ethnological Time,' *Man* 27, no. 2 (1992): 388.

[84] Hale, 'Language as a Test of Mental Capacity,' 80.

[85] Hale, 'Language as a Test of Mental Capacity,' 77, 80; and idem, 'A Lawgiver of the Stone Age,' 324.

'chief criteria' in tracing the movements of 'primitive people.'[86] Moreover, Hale's much earlier assertion that speaking humanity probably could claim an antiquity of less than 10,000 years (and perhaps only 3,000 in North America), now seemed unsupportable in light of recent archaeological discoveries. If, as the researches of Boucher de Perthes and others demonstrated, humanity stretched into the much more distant prehistoric past, comparative philology necessarily became a much less useful tool in determining human origins and development.[87] The extension of human antiquity quickly became normative: as anthropologist Charles Hill-Tout told an Edmonton audience in 1913, the extension of human settlement even in the Pacific Northwest had to be re-calculated from 5,000 years distant to 'at least fifteen milleniums [sic] farther.'[88] Although more halting than in other intellectual climates, the revolution in ethnological time soon pushed prehistoric humanity further distant: by 1924 Hill-Tout told a similar audience that identifiable humanity could be located at least two million years previous.[89] This ethnological revolution was obviously problematic for comparative philology as a form of prehistory for, as Stephen Pinker has recently noted, the history of language is in many ways uncharted since there are no fossils to show how it evolved.[90]

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[86] Thomas Griffith Taylor, 'The Ecological Basis of Anthropology [n.d., ca. 1928-1936].' Thomas Griffith Taylor Papers, Thomas Fisher Rare Book Library. Box 21. On Taylor, who came to the University of Toronto in 1936, see Nancy J. Christie, '"Pioneering for a Civilized World:" Griffith Taylor and the Ecology of Geography,' in *Dominions Apart: Reflections of the Culture of Science and Technology in Canada and Australia 1850-1945*, ed. Roy MacLeod and Richard Jarrell (Toronto: Scientia Press, 1994), 103-54.

[87] Burrow, 'The Uses of Philology,' 203.

[88] Charles Hill-Tout, 'Newspaper Clippings [Chas. Hill-Tout, Archaeologist, is Visiting City].' Charles Hill-Tout Fonds, Special Collections and University Archives, University of British Columbia. Box 2, file 6.

Sensitive to the changing intellectual currents around him, Daniel Wilson noted as early as the late 1860s that the 'significance of "race" as an element in the progress of diverse nationalities has acquired an importance in modern times wholly unknown to early historians.'[91] While Wilson's employment of biological explanations of human development have been the subject of some debate, it seems clear that environmental factors received primacy over racial ones, even in his anthropological writings. More forcefully than Daniel Wilson, Horatio Hale eschewed biological explanations in favour of a cladistic metaphor of development that rested wholly upon the science of 'linguistic ethnology.' Despite finding some favour among a select few missionaries, the direct influence of Daniel Wilson, Horatio Hale and Enlightenment principles was severely limited and, despite a more benign attitude toward Canada's Native peoples, both Edward Wilson and John Maclean were unable to extract themselves from nineteenth-century definitions of civilization and progress. Ironically, however, the influence of Daniel Wilson and Hale was substantial in a more indirect and bastardizing fashion. Among both Canadian and Anglo-American scholars, Wilson's popularization of linear development through a series of successive stages had considerable appeal even if his explanations for human development did not. Similarly, while Hale's emphasis on philology as the purest form of anthropology and his concern for the role of the environment in helping determine human behaviour was ultimately neglected, the cladistic model particularly common to linguists which emphasized branches of language emerging from a common stock was a model frequently utilized by racial ethnologists. However, perhaps fearing the decline of his philological model and the rise of racial models of development, Hale in 1891 expressed concern before the Royal Society of Canada of 'the physiological and "brutal" view of anthropology' and its capacity to overpower 'its philological and intellectual aspect.'[92] Science and society ignored this warning at its own peril, and it is perhaps ironic that Hale argued that this discipline was indispensable to those who 'would trace the past of a nation, and to the politician who in any capacity aspires to direct its future.'[93]

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[89] Charles Hill-Tout, 'Newspaper Clippings [Man Dates Back Two Million Years Audience is Told].' Charles Hill-Tout Fonds, Special Collections and University Archives, University of British Columbia. Box 2, file 6.

[90] Stephen Pinker, 'Survival of the Clearest,' *Nature* 404 (30 March 2000): 441-42.

[91] Daniel Wilson, 'Race Head-Forms and Their Expression by Measurement,' *Canadian Journal of Science, Literature and History* 12, no. 70 (1869): 269.

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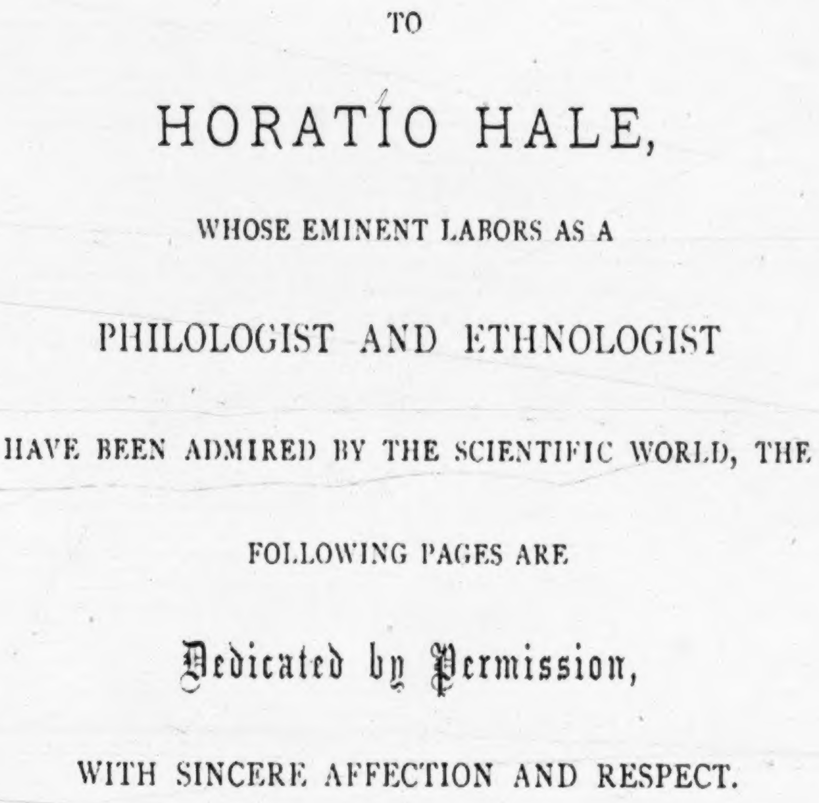
[92] Hale, 'Language as a Test of Mental Capacity,' 83.

[93] Hale, 'Race and Language,' 351.



TO

HORATIO HALE,

WHOSE EMINENT LABORS AS A

PHILOLOGIST AND ETHNOLOGIST

HAVE BEEN ADMIRED BY THE SCIENTIFIC WORLD, THE

FOLLOWING PAGES ARE

Dedicated by Permission,

WITH SINCERE AFFECTION AND RESPECT.

Figure 2.2: Maclean's Dedication to Horatio Hale.

Source: John Maclean, *The Indians: Their Manners and Customs*, frontpiece.

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The Descent of Man: John William Dawson and the Mosaic Interpretation of the Prehistoric Past

> Any true science of man must therefore go back to his origin...
> J.W. Dawson[1]

> My own belief is that the doctrines of the antiquity and descent of man, as held by the more extreme evolutionists, have attained to their maximum degree of importance... .
> J.W. Dawson[2] (1875)

> ...or speak to the earth, and it will teach you
> Job 12:8

The thirty-seventh meeting of the British Association for the Advancement of Science held in Dundee in 1867 precipitated vigorous debate regarding the nature and condition of original humanity. Backed by an emerging constituency of evolutionary anthropologists, John Lubbock maintained that the available anthropological evidence illustrated that humanity had progressed from its original primitive state as a 'mere savage' to one that in some forms could now be regarded as civilized.[3] The historian of science, Neal Gillespie, contends that the supposed consensus for Lubbock's position was so strong that the anthropologist was not motivated by a desire to stimulate debate; rather, he hoped to end discussion by providing definitive (and, to him, obvious) answers to the claims of Richard Whately, the late Archbishop of Dublin, and others who a generation earlier had championed the idea of cultural degeneration of humanity from a previous golden age. However, Lubbock's self-referential confidence in the authority of the evolutionary position was not shared by all at the Dundee meeting: although he did not agree precisely with Whately's version of cultural degeneration, George Douglas Campbell, the Duke of Argyll, emerged during the Dundee meetings as a vigorous opponent to Lubbock's developmental model.[4]

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[1] J. W. Dawson, *Fossil Men and Their Modern Representatives: An Attempt to Illustrate the Characters and Conditions of Pre-Historic Men in Europe, By Those of The American Races*, 3rd ed. (London: Hodder & Stoughton, 1888 [1880]), 309.

[2] J.W. Dawson, 'Primitive Man and Revelation,' *Transactions of the Victoria Institute* 8 (1875): 59.

[3] John Lubbock, 'On the Origin of Civilisation and the Early Condition of Man,' *Report of the British Association for the Advancement of Science* 37 (1868): 118.

The nineteenth-century controversy between the champions of cultural degeneration and those of evolutionary development is often seen through a teleological lens constructed on the basis of the massive weight of anthropological and archaeological findings over the past century, often interpreted in conjunction with a more overt secular perspective that has little faith in a biblical golden age. This contemporary scepticism has drawn upon a healthy repertoire of historical opposition. Although Daniel Wilson is sometimes seen in a similar light as John William Dawson because of his initial response to Darwin's theory of evolution, he did not embrace a Mosaic interpretation of prehistory.[5] His 'viewing' of new world prehistory led him to the conclusion that there was little to 'lend countenance to any theory of degeneracy from a higher condition of life.'[6] In a much more vociferous manner, by the late nineteenth-century evolutionary anthropologists such as John Lubbock, Lewis Henry Morgan and others had branded the degenerationists as theological zealots bereft of scientific evidence.[7] As one reviewer noted in his critique of Dawson's *The Story of Earth and Man*, the work was marked by a 'dogmatic and unscientific spirit' that gave rise to 'false notions ... [of] the greatest theory of modern times.'[8] In the development of such a characterization, the complexity of the degenerationist argument has thus been obfuscated, and the strength of its appeal to a nineteenth-century audience minimalized.

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[4] On the Dundee meetings see Neal C. Gillespie, 'The Duke of Argyll, Evolutionary Anthropology, and the Art of Scientific Controversy,' *Isis* 68, no. 241 (1977): 40-54. For discussions on the idea of cultural degeneration in the nineteenth and twentieth centuries, see Carpenter, 'The Role of Archaeology in the 19th Century Controversy Between Developmentalism and Degeneration,' 5-18; Harris, *Rise of Anthropological Theory*, 54-59; Kenneth A.R. Kennedy, 'Race and Culture,' in *Main Currents in Cultural Anthropology*, ed. Raoul Naroll and Froda Naroll (New York: Appleton-Century-Crofts, 1973), 131-35; Chamberlin and Gilman, ed., *Degeneration: The Dark Side of Progress*; Pick, *Faces of Degeneration*; and Eves, 'Going Troppo: Images of White Savagery, Degeneration and Race in Turn-of-the Century Colonial Fiction,' 351-85.

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[5] For their initial responses, see J.W.D. [John William Dawson], review of *On the Origin of Species by Means of Natural Selection*, by Charles Darwin, *The Canadian Naturalist and Geologist* 5, no. 2 (1860): 100-20; and Daniel Wilson, 'The President's Address,' *The Canadian Journal of Science, Literature and History* 5, no. 26 (1860): 109-27.

[6] Wilson, 'Pre-Aryan American Man,' in *The Lost Atlantis and Other Ethnographic Studies*, 132. As Wilson noted, '...the true GOLDEN AGE OF MAN lies before him, not behind.' Wilson, *Prehistoric Annals of Scotland*, II: 529. Emphasis in the original.

[7] Gillespie, 'The Duke of Argyll,' 50-51; Robert L. Carneiro, 'Classical Evolution,' in *Main Currents in Cultural Anthropology*, ed. Raoul Naroll and Frada Naroll (New York: Appleton-Century-Crofts, 1973), 78; and Harris, *Rise of Anthropological Theory*, 58.

[8] 'Pedigree and Relationship of Man [book review],' *Nature* 9 (8 January 1874): 180.

John William Dawson was a participant in this debate, although he did not embrace the degenerationist cause with the simplicity and vigour that has sometimes been attributed to him.[9] His influence on Canadian science and society was profound: his voluminous writings spoke to a wide audience and by the last quarter of the nineteenth century he was perhaps the leading anti-Darwinian naturalist in the north Atlantic world.[10] Dawson's Mosaic interpretation of the distant and prehistoric past sought to bridge science and scripture through an idealist vision of natural theology that was evident in both the inorganic and organic worlds. While the law of 'progress and development in nature' was continuous, it was not inevitable.[11] Instead, a transcendental understanding of the organic and physical laws of nature illustrated that concepts of degeneration and development acted as coeval partners in the natural and human history of the world.

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[9] See for example Jon H. Roberts, *Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859-1900* (Madison: The University of Wisconsin Press, 1988), 109-10.

[10] Dawson wrote prodigiously and his works sold widely in England and Canada: *The Origin of the World* ran to six editions, while *The Story of Earth and Man* saw 11 printings and several pirated editions. See Susan Sheets-Pyenson, *John William Dawson: Faith, Hope, and Science* (Montreal & Kingston: McGill-Queen's University Press, 1996), 123. Upon Dawson's death, Henry Ami of the Geological Survey composed a Dawson bibliography that ran to over thirty pages and included publications in leading scientific organizations, evangelical presses, and both popular and academic journals and newspapers. See Henry M. Ami, 'Sir John William Dawson. A Brief Biographical Sketch,' *The American Geologist* 26, no. 1 (1900): 14-48.

[11] John William Dawson, *The Origin of the World According to Revelation and Science* (London: Hodder & Stoughton, 1877), 75.

John William Dawson and the Mosaic Account

Looking back upon an industrious career, John William Dawson modestly reflected that he could claim little credit, 'except for earnest toil.'[12] As the Dawson children (save son Rankine) lamented, this self-evaluation seemed to ignore both the achievements and the sympathetic and tender nature of their patriarch.[13] Nevertheless, by virtually any standard, Dawson's life was defined by a prodigious Protestant work ethic. Born in Pictou, Nova Scotia in 1820 and educated at Thomas McCulloch's Pictou Academy and the University of Edinburgh, Dawson established himself as an administrator, educator and scientist of international prominence in the latter half of the nineteenth century. Dawson's writings were voluminous, and of the over 400 books and articles he published, some made important contributions to nineteenth-century science.[14] His belief that science and religious faith were not irreconcilable domains, however, conditioned both his scholarship and his reputation. While his writings on science and religion were massively popular, an idealist vision of natural theology was under increased attack from the scientific community in the late nineteenth century. R.W. Raymond, who was both an evangelical and an evolutionist, revealed the loneliness of Dawson's position when he wrote to the Montreal principal 'that since the departure of Agassiz, there are few left, except yourself, competent to deal with the geological and palaeontological argument, in such a way as really to test the Darwinian or any kindred hypothesis. You are an adversary from whom one may learn with delight.'[15] On more firm ground, Dawson established himself as an administrator and educator of heroic proportions: when he assumed the principalship of McGill in 1855 it languished as an intellectual backwater with few students and staff and meagre support from the Montreal business community. Thirty-eight years of Dawson leadership had vaulted it to an international stature; as one observer noted, McGill had been transformed from a 'tiny, poverty-stricken provincial school' into 'a well-endowed university of worldwide reputation.'[16] At the end of a prodigious life, Henry Ami noted of Dawson, 'Sir William accomplished enough during his life, in the interests of education, science, and religion to satisfy any three hard working individuals.'[17] Ami was underestimating, and upon Dawson's retirement some ten individuals were required to replace him.[18]

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[12] Cited in Sheets-Pyenson, *John William Dawson*, 209. On Dawson's life and career also see Frank D. Adams, 'Sir John William Dawson,' *The Canadian Record of Science* 3, no. 3 (1900): 137-49; Henry M. Ami, 'Sir John William Dawson,' 1-48; Bruce G. Trigger, 'Sir John William Dawson: A Faithful Anthropologist,' *Anthropologica* 8, no. 2 (1966): 351-59; Charles F. O'Brien, *Sir William Dawson: A Life in Science and Religion* (Philadelphia: American Philosophical Society, 1971); Peter R. Eakins and Jean Sinnamon Eakins, 'Dawson, Sir John William,' *Dictionary of Canadian Biography* (Toronto: University of Toronto Press, 1990), vol. 12: 230-37; and especially Sheets-Pyenson, *John William Dawson*, which draws extensively upon Dawson's correspondence.

[13] On this aspect and the controversy over the publishing of Dawson's autobiography see Sheets-Pyenson, *John William Dawson*, 207-11. Two obituarists noted Dawson's humility and gentle nature. See Ami, 'Sir John William Dawson,' 8-9; and Adams, 'Sir John William Dawson,' 147-48.

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[14] Though sometimes controversial, his scholarship in geology and paleobotany was seen by some as meritorious. See, for example, G.P. Merrill, *The First One Hundred Years of American Geology* (New York: Hafner Publishing Company, 1969 [1924]), 325-27.

[15] R.W. Raymond to John William Dawson, 30 September 1879, 'J.W. Dawson—Letters, September 1879.' Dawson Family Papers, McGill University Archives. Box 7. On the ability of some evangelicals to incorporate 'the origin of species by descent' (as Raymond termed it) into their theology, see David N. Livingstone, *Darwin's Forgotten Defenders: The Encounter Between Evangelical Theology and Evolutionary Thought* (Vancouver: Regent College Publishing, 1997 [1987]), chapters 3-4.

Virtually on the heels of the publication of *On the Origin of Species* (1859) came *Essays and Reviews* (1860), a volume of seven essays written by six Church of England priests and one pious layman.[19] Though the individual essays differed topically, in its entirety *Essays and Reviews* argued that the Bible ought to be subject to the same critical study as any other book or set of ancient documents, or, as a Canadian critic of the volume stated with disdain, treated 'as a human utterance.'[20] *Essays and Reviews* proved both popular and contentious: by 1865 it had run through six editions, and when one of the authors died soon after publication, his passing was tritely seen by some as a mixed blessing, since it saved him from much of the scorn and persecution that was directed toward his fellow contributors.[21] Ultimately, the reaction to *Essays and Reviews* rivalled (and perhaps parallelled) that directed toward Darwin's work: in the *Westminster Review*, for example, Frederick Harrison, a one-time High-Churchman who had defected to become a devotee of Auguste Comte, praised *Essays* for revealing the 'crumbling edifice' of the established church.[22]

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[16] *The Outlook* (London), 25 November 1899; cited in Sheets-Pyenson, *John William Dawson*, 204.

[17] Ami, 'Sir John William Dawson,' 1.

[18] Sheets-Pyenson, *John William Dawson*, 6.

[19] On *Essays and Reviews* see Desmond Bowen, *The Idea of the Victorian Church: A Study of the Church of England 1833-1889* (Montreal: McGill University Press, 1968), 160-72; and Owen Chadwick, *The Victorian Church*, 2 vols. (London: Adam & Charles Black, 1966, 1970), II: 75-97. The seven individuals included Frederick Temple, C.W. Goodwin, Rowland Williams, H.B. Wilson, Mark Pattison, Baden Powell and Benjamin Jowett.

The publication of *Essays and Reviews* also raised contentious issues on Canadian soil. In particular, C.W. Goodwin's 'On the Mosaic Cosmogony' challenged the work of theological geologists such as Hugh Miller and William Buckland who wished to reconcile recent discoveries in geology and astronomy with a Mosaic account of creation.[23] This debate was quickly picked up in the Canadian Christian press.[24] In a series of articles to the *Christian Guardian* in 1861, one correspondent objected to Goodwin's insistence on the separate nature of science and scripture, claiming that

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[20] Philolithos, 'A Review of the Essay No. 5 ... Mr Goodwin's Creed,' *Christian Guardian* 32 (16 October 1861): 163.

[21] Robert M. Young, 'Natural Theology, Victorian Periodicals and the Fragmentation of a Common Context,' in *Darwin's Metaphor: Nature's Place in Victorian Culture* (Cambridge: Cambridge University Press, 1985), 146.

[22] Bowen, *Idea of the Victorian Church*, 169.

> [t]he plain meaning of the Hebrew record is unscrupulously tampered with, and in general the pith of the whole process lied in divesting the text of all meaning whatever. We are told that Scripture not being designated to teach us natural philosophy, it is in vain to attempt to make out a cosmogony from its statements.[25]

Moreover, in addition to violating the sacred bond between scripture and science, another claimed that Goodwin's essay constituted a methodological assault upon knowledge that ultimately ruptured 'Lord Bacon's theory of experimental philosophy

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[23] Bowen, *Idea of the Victorian Church*, 168; and McKillop, *A Disciplined Intelligence*, 122-123. As Dawson noted, at no other point does 'modern' science impinge on the Bible more than in 'the relations of geology to the narrative of creation in Genesis.' See J.W. Dawson, *The Bible and Science* (London: Richard D. Dickinson, 1875), 15.

[24] McKillop, *A Disciplined Intelligence*, 117-18; Michael Gauvreau, *The Evangelical Century: College and Creed in English Canada from the Great Revival to the Great Depression* (Montreal & Kingston: McGill-Queen's University Press, 1991), 130-132; and Brian Clarke, 'English-Speaking Canada from 1854,' in *A Concise History of Christianity in Canada*, ed. Terrence Murphy and Roberto Perin (Don Mills, ON: Oxford University Press, 1996), 318-19.

[25] 'A Review of the Essay No. 5 of "Essays and Reviews,"—"On the Mosaic Cosmogony,"' *Christian Guardian* 32 (18 September 1861): 147. Also see 'A Review of the Essay No. 5 of "Essays and Reviews,"—"On the Mosaic Cosmogony,"' *Christian Guardian* 32 (11 September 1861): 142; and Philolithos, 'A Review of the Essay No. 5 of "Essays and Reviews,"—"On the Mosaic Cosmogony," Letter IV. On the Source and Character of Mr. Goodwin's Education,' *Christian Guardian* 32 (2 October 1861): 157.

[which] will always be found [to be] the safest guide to true philosophy.'[26]

Although C.W. Goodwin bore the majority of the venom from the *Guardian*, John William Dawson did not escape unscathed. While Dawson clearly did not share Goodwin's view of either science or scripture, his advocacy of the immense antiquity of the earth (although not humanity) met with strenuous objections. While not denying that there was 'some useful knowledge' in Dawson's *Archaia*, a *Guardian* correspondent insisted that 'it also contains a vast amount of effort to subvert our faith in the logical consistency of the Bible.'[27] In particular, under the influence of Hugh Miller and Charles Lyell—the latter 'suspected' of preferring the Hindoo and Egyptian chronologies as being more reliable than that of the Hebrew—Dawson had adopted a modified uniformitarian view of geological history that accepted that each of the 'days' in the Genesis creation account constituted thousands or even millions of years.[28] Such a view accepted Lyell's conclusion that geological events occurred over immense periods of time, but also left room for periodic catastrophes such as the historic deluge. The anonymous writer to the *Christian Guardian* was not convinced. After listing a series of objections to the work of Lyell, Miller and Dawson, he concluded that the 'theological geologists' suffered 'the shame of ... double failure': their theories both 'pervert[ed] the Bible and falsif[ied] geology.'[29]

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[26] Jos. T. Dutton, 'Mosaic Cosmogony,' *Christian Guardian* 32 (11 December 1861): 195.

[27] 'A Review of the Essay No. 5,' *Christian Guardian* 32 (18 September 1861), 147.

[28] For his clearest explanation on why the 'days' of creation should be considered lengthy periods of time, see Dawson, *The Bible and Science*, 15-17. For similar views see Nathanael Burwash, 'An Essay on the Coincidence of the Geological with the Mosaic Account of Creation (1858).' Nathanael Burwash Fonds, United Church of Canada/Victoria University Archives. Box 19, file 486; and E.M. Burwash, 'Student Notes on Geology (1892).' E.M. Burwash Fonds, United Church of Canada/Victoria University Archives. Box 2, file 27.

The criticism of Goodwin's views on the pages of the *Christian Guardian* ironically revealed a fundamental division between advocates of a literal twenty-four hour day of creation and Dawson's modified uniformitarian views, as well as a more flexible account of the Mosaic record of the distant and prehistoric past. Joseph T. Dutton's correspondence to the *Guardian* argued that the uniformitarian 'hypothesis laid down by Geologists of the present day ... [in which] the formation of the Globe underwent a process of gradual development ... [is nothing] but the flights of fancy and speculations of philosophy.' Such flights of fancy and speculations were entirely unnecessary, for 'it was as easy for the Almighty to form the earth in a perfect state by His word in a moment of time agreeable to the Mosaic account, as it was to pass it through such a long process as is inferred by some... .'[30] This was, as another correspondent stated, 'the grand point of difference.'[31] The act of creation was a recent and brief affair, with the earth being formed on the third day and the original pair three days later. In contrast, Dawson's commitment to an ancient earth necessitated that the act of creation be extended over a far greater time period. For theological geologists who adopted uniformitarianism, the great antiquity of the earth spoke to the creative powers of God over the entire course of history from the creation of a nebulous mass millions of years previous to the more recent appearance of humanity.[32] This long creative period was divided into six eras which parallelled the 'days' of creation; this was not 'an intentional reconciliation' of Genesis and science, Dawson maintained, but 'merely expresses the fact of the case... .'[33] Moreover, continuous creation also provided a response to evolutionary claims. The 'aggressive applications' of Darwinian doctrine had led some to argue that fossil discoveries illustrated the 'connecting links between extinct and recent species' (not varieties). Instead, in a pattern that would be replayed throughout the organic world, the fossil record displayed 'a marvellous persistency' in which 'each species seems to come in without progenitors, and to become extinct without descendants.'[34] The fact that the fossil record illustrated greater complexity and variety was not due to natural selection, but rather to God's progressive plan in which a higher order of creation was continuously introduced.[35]

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[29] 'A Review of the Essay No. 5,' *Christian Guardian* 32 (18 September 1861): 147.

[30] Dutton, 'Mosaic Cosmogony,' *Christian Guardian*, 32 (11 December 1861): 191.

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[31] 'A Review of the Essay No. 5,' *Christian Guardian* 32 (11 September 1861): 142.

[32] O'Brien, *Sir William Dawson*, 30.

[33] Dawson, *Meeting-Place of Geology and History*, 20, note 1. For the parallel between the creative periods and Genesis see Table 3.1.

The flexible nature of the Mosaic account is also revealed in the changing nature of natural theology in the nineteenth century and, in particular, the changing nature of a designed universe. William Paley's *Natural Theology* (1802) had put forth a utilitarian argument for design which stressed the usefulness of each character as it contributed to that species' adaptation to its environment.[36] The success of the adaptation of the individual parts thus acted as an illustration of divine order and benevolence.[37] The acceptance of uniformitarian principles by theological geologists such as Hugh Miller and Dawson, however, spoke to an idealist version of design, which depended upon 'the unity and harmony of the whole of nature, [and] not on the utility of its individual parts.'[38] With the rise of an idealist version of design, the emphasis, as David

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[34] Dawson, *The Bible and Science*, 27.

[35] Dawson, review of *On the Origin of Species by Means of Natural Selection*, by Charles Darwin, 113; and idem, *The Bible and Science*, 27.

[36] On the place of Paley within Canadian church colleges, see McKillop, *A Disciplined Intelligence*, 30 and *passim*; and Gauvreau, *The Evangelical Century*, 60-63.

[37] Peter J. Bowler, 'Darwinism and the Argument from Design: Suggestions for a Reevaluation,' *Journal of the History of Biology* 10, no. 1 (1977): 31; and David Livingstone, 'The Idea of Design: The Vicissitudes of a Key Concept in the Princeton Response to Darwin,' *Scottish Journal of Theology* 37, no. 3 (1984): 335-36.

[38] Bowler, 'Darwinism and the Argument from Design,' 32.

Livingstone notes, was therefore upon a 'transcendental understanding of design based on the overall pattern of the created order.'[39] Moreover, one could see design not only throughout nature, but also throughout time: in tracing the idealist version of design through the work of Miller and Louis Agassiz, Peter Bowler argues that it was also utilized in interpreting the fossil record as a progressive unfolding of God's plan of creation.[40] Although he did not remove himself entirely from Paley's utilitarian interpretation, J.W. Dawson embraced the idealist version of design with its attendant emphasis on the overall harmony in nature and the 'progressive' nature of the fossil record. By necessity, therefore, Dawson placed humanity within an environment in which God's harmonious hand operated in all spheres of the natural world, both past and present. As Dawson noted in the preface to *Fossil Men*, the prehistoric past was an 'obscure region' which the geologist, archaeologist, historian, philologist, and anthropologist approach 'from different directions, all claim[ing] to be heard.'[41] By turning to the stars and the firmament, therefore, Dawson saw further confirmation of

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[39] Livingstone, 'The Idea of Design,' 335.

[40] Bowler, 'Darwinism and the Argument from Design,' 35.

[41] Dawson, *Fossil Men and Their Modern Representatives*, iii. Others recognized the necessarily interdisciplinary nature of Dawson approach to science, with the *Montreal Daily Witness* recording that 'the term natural science may be held to include our arranged and systematized knowledge of the earth and its living inhabitants. It will thus comprise not only geology and [the] biological sciences but anthropology and psychology.' See J.W. Dawson, 'Printed (Sci. & Rel.) Clippings [Sir William Dawson's Address at Chicago].' Dawson Family Papers, McGill University Archives. Box 36, file 9.

God's plan for humanity.

Design from Above and Below

Unlike Daniel Wilson, who enjoyed long evening walks with Robert Chambers while growing up in Edinburgh, J.W. Dawson had little intellectual continuity with the author of *Vestiges of the Natural History of Creation*. Following the publication of *Vestiges* in 1844, there was ferocious opposition from both theologians and scientists to Chambers' neo-Larmarckian argument for a single natural law of organic and inorganic development.[42] Most notably, spurred on by the publication of *Vestiges*, the Scottish preacher and geologist Hugh Miller penned *Footprints of the Creator* in 1847, an enormously popular work that ran through seventeen editions and blended science and scripture in its critique of *Vestiges*.[43] This work had a decided influence on Dawson: he was studying in Edinburgh when *Footprints* appeared and when he published *Archaia* in 1860, its synthesis of science and scripture was very much in the Millerite tradition.[44]

However, despite Miller's influence and Dawson's obvious antagonism toward Chambers' central assumptions on the evolution of life, the Montreal geologist did not condemn all arguments presented in *Vestiges*. Beginning in the 1830s, Laplace's nebular hypothesis enjoyed a renaissance in the Anglo-American scientific community, largely through the propagandistic efforts of John Nichol in *Views of the Architecture of the Heavens* (1837), the separate efforts of the authors of the *Bridgewater Treatises* (1833-1840), and, into the 1840s, Robert Chambers.[45] Dawson, like many other scientists in North America, was influenced by this renaissance, particularly through the work of Nichol, who (unlike Chambers) actively sought to reconcile the Biblical record and scientific theory.[46] The nebular hypothesis had been conceived by Pierre Simon, Marquis de Laplace, a leading scientist in revolutionary France, who argued that the origins of the solar system lay in an ancient nebular mass that rotated and, as centrifugal overcame gravitational force, threw off outer rings at regular intervals from the inner mass with each ring subsequently forming a planet and the centre mass becoming the sun. The integrity of the planets' rotation was preserved and the solar system was thus 'created.'

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[42] For a definitive account on the controversy created by *Vestiges*, see Secord, *Victorian Sensation*.

[43] Charles Coulston Gillispie, *Genesis and Geology: A Study in the Relations of Scientific Thought, Natural Theology, and Social Opinion in Great Britain, 1790-1850*, 2nd ed. (Cambridge: Harvard University Press, 1996 [1951]), 170-81.

[44] O'Brien, *Sir William Dawson*, 30.

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[45] Ronald L. Numbers, *Creation by Natural Law: La Place's Nebular Hypothesis in American Thought* (Seattle: University of Washington Press, 1977), 20-21; Simon Schaffer, 'The Nebular Hypothesis and the Science of Progress,' in *History, Humanity and Evolution: Essays for John C. Greene*, ed. James R. Moore (Cambridge: Cambridge University Press, 199), 131-64; and Marilyn Bailey Ogilvie, 'Robert Chambers and the Nebular Hypothesis,' *British Journal for the History of Science* 8, no. 30 (1975): 214-32. Numbers notes that of the eight authors of the Bridgewater Treatises, only Thomas Chalmers regarded the nebular hypothesis as a threat to natural theology. See Numbers, *Creation by Natural Law*, 79.

[46] John William Dawson, *Archaia; or Studies of the Cosmogony and Natural History of the Hebrew Scriptures* (London: Samson Low, Son & Co., 1860), 89. This work appeared in revised form as *The Origin of the World According to Revelation and Science* (London: Hodder & Stoughton, 1877). The revised version sold more favourably, with some 1500 copies purchased during its first year and six editions in print by 1893. See Sheets-Pyenson, *John William Dawson*, 123, 125.

Although there had been some opposition to the principles of the nebular hypothesis on both scientific and theological grounds, by the 1850s most in the English Atlantic world had succumbed to its charms.[47] Dawson was among this number. Although not an astronomer, he insisted that the nebular hypothesis provided a means of reconciling Scriptural authority with scientific evidence. This had not been Laplace's intention: his *Exposition du système du monde* (1796) had been written as a challenge to the Newtonian cosmogony that had placed the creative aspects of natural law within the sovereignty of the biblical record. Chambers had agreed in an incidental fashion. Although *Vestiges* did not explicitly exclude a divine power, it explained the current status of humanity as a product of materialistic development.[48] However, the belief that Laplace's theory was inherently atheistic was not its legacy by the 1850s. Dawson and others recognized that the nebular hypothesis had not been originally conceived as a means to reconcile science and scripture: 'the cosmical hypothesis of La Place,' he argued, 'which was certainly formed without any reference to the Bible; and by persons whose views of the Mosaic narrative are of that shallow character which is too prevalent, has been suspected as of infidel tendency.'[49] However, by the mid-nineteenth century, the emergence of an idealized vision of natural theology dictated that the principles of the nebular hypothesis should accord with the Mosaic narrative: as Dawson noted, 'the hypothesis of the great French astronomer [was] ... a wonderful approximation to the grand and simple plan of the construction of our system as revealed in Scripture.'[50]

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[47] By the mid-nineteenth century, the American scholar Daniel Kirkwood developed the 'Kirkwood Analogy' which responded to the challenges of the nebular hypothesis and almost single-handedly restored the faith of American scientists in Laplace's theory. See Numbers, *Creation By Natural Law*, chapter 4.

[48] Numbers, *Creation by Natural Law*, 30.

Dawson was not isolated in his belief concerning the veracity of the nebular hypothesis, which by the mid-nineteenth century had gained currency in English Canada, particularly among those who sought an accord between scriptural and scientific authority. William Leitch, principal and professor of theology at the University of Queen's College in Kingston, found in the study of astronomy confirmation of divine truth.[51] On the emotive level, recognition of 'the immensity of the universe, contrasted with the humble abode of man ... brings out most strikingly the value of the human soul, as redeemed by the death of the Cross.'[52] But the study of the stars also provided some individuals with answers to the great complexities of the universe. Not all defenders of the Genesis account were advocates of twenty-four-hour days of creation and the short age of the earth. To individuals such as Leitch and Dawson, the nebular hypothesis was easily and necessarily incorporated into a Mosaic cosmogony that allowed for the great antiquity of the universe. Leitch made explicit comparison between various facets of the books of nature and of God: 'for the interpretation of the first chapter of Genesis,' he argued, 'which admits of the long periods of the geologists, also allows a like extension to the speculations of the astronomer.'[53] Instead, accepting deep time for the earth and universe if not for humanity, the nebular hypothesis illustrated the intersection of divine and natural law in the very origins of God's creation. Leitch recognized that the nebular hypothesis had inherent appeal to the sceptic, as well, since as 'the traces of God disappear' the formation and operation of the universe could be 'reduced' to 'general laws.'[54] As historians have subsequently noted, one of the destructive tendencies inherent in natural theology was that natural laws could acquire a logical status that ultimately made them a substitute for God.[55] In anticipating this argument, Leitch

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[49] John William Dawson, *Archaia*, 89.

[50] Dawson, *The Origin of the World*, 122; and William Leitch, *God's Glory in the Heavens* (London: Alexander Strahan and Co., 1862), 224, 282-83.

[51] On Leitch see 'The Late Principal Leitch,' *The Canadian Naturalist and Geologist* [*Kingston News*] 1, no. 3 (1864): 237-38.

[52] Leitch, *God's Glory in the Heavens*, 2. A review of Leitch's volume praised it for its discussion of 'recent astronomical discovery and speculation, in connexion with the religious questions to which they give rise.' See [H.Y. Hind?], review of *God's Glory in the Heavens*, by William Leitch, *The British American Magazine* 1 (July 1863): 308-16. As Carl Berger notes, the study of nature in the nineteenth century was seen as a means of discerning religious insight and even as an act of worship in itself. See
(continued...)

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[52](...continued)
Berger, *Science, God, and Nature in Victorian Canada* (Toronto: University of Toronto Press, 1983), chapter 2.

[53] Leitch, *God's Glory in the Heavens*, 225.

[54] Leitch, *God's Glory in the Heavens*, 224; and Dawson, *The Bible and Science*, 7.

[55] Young, 'Fragmentation of a Common Context,' 135-36; and Berger, *Science,*
(continued...)

maintained that the 'atheist who appeals to the nebular hypothesis [in such a fashion], can be met without making such a fatal admission.'[56] Instead, he argued that the first cause was clearly divine in origin, for 'primordial atoms, with their original susceptibilities, ... urgently demand a wise Intelligence, as the worlds evolved from them.'[57] In spite of the dangers inherent within it, the Laplacian thesis had lasting resonance: even into the late 1880s William Austin Ashe, the director of the Quebec observatory, concluded that in the study of the nebular hypothesis 'there is ... much evidence of design, [and] of the presence of an all-wise Entity in the assumptions made use of in our hypothesis... .'[58]

By the turn of the century the nebular hypothesis had largely fallen into disuse in the north Atlantic world as an expression of natural theology.[59] By the Great War, two

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[55](...continued)
God, and Nature, 54.

[56] Leitch, *God's Glory in the Heavens*, 224.

[57] Leitch, *God's Glory in the Heavens*, 225.

[58] W.A. Ashe, 'An Elementary Discussion of the Nebular Hypothesis,' *Transactions of the Literary and Historical Society of Quebec* 19 (1889): 83. Also see G.G. Pursey, 'A Nebular Theory of Creation,' *Transactions of the Canadian Institute* 8 (1910): 451-59, especially pp. 458-59. William Austin Ashe was the son of Edward Ashe, a Royal navy officer and astronomer who had helped establish the Quebec Observatory in 1850. See Richard A. Jarrell, *The Cold Light of Dawn: A History of Canadian Astronomy* (Toronto: University of Toronto Press, 1988), *passm*; and idem, 'Ashe, Edward David,' *Dictionary of Canadian Biography* (Toronto: University of Toronto Press, 1990), vol. 12: 41-42.

[59] Numbers, *Creation by Natural Law*, 118. Berger likewise argues that natural
(continued...)

Chicago scientists, Thomas C. Chamberlin and F.R. Moulton, had conceived the planetesimal hypothesis, an argument that largely vitiated Laplace's theory and went unchallenged for several decades as an explanation for the formulation of the universe.[60] Moreover, despite Leitch's ironic statement that the nebular hypothesis must 'be dealt with purely as a question of science,' it also found fewer adherents as a means toward divine knowledge.[61] Daniel Buchanan, who had taken his doctorate in celestial mechanics at Chicago in 1911 and would go on to teach astronomy at the University of British Columbia for three decades beginning in 1921, noted the weakness of the hypothesis on both scientific and ecclesiastical grounds: following a lengthy discussion of its scientific deficiencies, Buchanan noted its lack of appeal as a tool of natural theology claiming that 'no church ... adopts the Laplacian hypothesis as a creed and [since there is] no Inquisition to enforce adherence to its teaching, our faith and freedom are independent of our attitude toward this hypothesis.'[62]

Just as Dawson looked to the heavens, he also looked to the earthly depths for

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[59] (...continued)
theology declined as a means of discerning divine law in the late Victorian era. See Berger, *Science, God and Nature*, chapter 2; and Livingstone, 'The Idea of Design,' 334.

[60] Numbers, *Creation by Natural Law*, 76. On the adoption of the planetesimal hypothesis by one Canadian astronomer, see Daniel Buchanan, 'The Planetesimal Hypothesis,' *Queen's Quarterly* 24, no. 1 (1916): 1-15.

[61] Leitch, *God's Glory in the Heavens*, 225.

[62] Daniel Buchanan, 'The Fallacy of the Nebular Hypothesis,' *Queen's Quarterly* 23, no.2 (1915): 162. On Buchanan see Jarrell, *The Cold Light of Dawn*, 137.

confirmation of the interrelation of divine and natural law that was central to his theories concerning deep time and the prehistoric world. In 1858 William Logan, director of the Geological Survey of Canada, had discovered *Eozoön Canadense* (dawn animal of Canada) in the pre-Cambrian (or Azoic) rocks of eastern Canada, and thus launched a half-century of debate in which Dawson was a principal participant. This debate largely centred around the supposed organic structure of *Eozoön*: during trips to the American Association for the Advancement of Science in Springfield in 1859 and to England in 1862, Logan had announced to few converts that among the ancient samples there existed fossils of a far greater age than had previously been imagined.[63] Despite initial scepticism, support for *Eozoön* as the earliest representative of organic matter grew quickly with the conversion of Dawson, one of the leading North Atlantic geologists, and William B. Carpenter, a leading expert on Foraminefera. Others concurred: the American geologists James Hall and James Dana agreed that *Eozoön Canadense* represented the earliest known organic matter, and, in a great irony, Charles Darwin in the fourth and subsequent editions of *On the Origin of Species* made note of *Eozoön Canadense* as illustrative of the immense duration of life on earth.[64] As William Logan wrote to Robert Bell in 1864, *Eozoön Canadense* 'has altogether met with great success.'[65] This consensus was not lasting, however. By the mid-1860s the Irish mineralogists William King and Thomas H. Rowney—who had once been 'zealous advocates ... of the organic nature' of *Eozoön*—had come to the conclusion that such a view was in error. Moreover, in 1879 Karl Möbius, a recognized expert in Foraminifera and professor of zoology at Kiel, published a devastating and widely accepted critique of the animal nature of *Eozoön*. When Carpenter died in 1885, the Montreal principal was left virtually isolated in his defence of *Eozoön* as organic matter. Dawson was, of course, undaunted, and wrote at length and with some emotional vigour defending the presence of organic nature in the ancient Laurentian rocks virtually right until his death in 1899.[66]

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[63] For a summary of this debate see O'Brien, *A Life in Science and Religion*, chapter 6; idem, '*Eozoön Canadense*: "The Dawn Animal of Canada,"' *Isis* 61 (1979): 206-23; Sheets-Pyenson, *John William Dawson*, 140-48; Zeller, *Inventing Canada*, 103-4; and Morris Zaslow, *Reading the Rocks: The Story of the Geological Survey of Canada, 1842-1872* (Toronto: Macmillan, 1975), 86-88.

[64] O'Brien, '*Eozoön Canadense*,' 206-207.

Dawson's commitment to the organic character of *Eozoön* was profound and reflective of both his Mosaic and degenerationist views. While Charles Darwin used *Eozoön* to fortify his views on the great antiquity of life, Dawson utilized *Eozoön* as a servant to a much different ideological purpose: *Eozoön* represented the sudden appearance of a mature life form with no apparent prerequisites. Its subsequent manifestations did not illustrate grander examples; instead, *Eozoön* decayed from its mature form and was replaced by separate and more complex forms. In his Vice-Presidential address before the American Association for the Advancement of Science in 1875 he argued that if *Eozoön*

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[65] William E. Logan to Robert Bell, 15 December 1864. Sir William Edmond Logan Papers, McGill University Archives.

[66] This paragraph draws from O'Brien, 'Eozoön Canadense,' 208; and O'Brien, *A Life in Science and Religion*, chapter 6. For a sampling of his writing on *Eozoön*, see Dawson, 'On Eozoon Canadense,' *The Canadian Naturalist and Geologist* 3, no. 4 (1868): 312-21; idem, 'New Facts Relating to Eozoon Canadense,' *Proceedings of the American Association for the Advancement* 25 (1876): 231-34; idem, 'Möbius on Eozoon Canadense,' *The Canadian Naturalist and Quarterly Journal of Science* 9, no. 2 (1881): 105-15; idem, 'Note of Recent Controversies Respecting *Eozoon Canadense*,' *The Canadian Naturalist and Quarterly Journal of Science* 9, no. 4 (1881): 228-40; idem, 'Eozoon Canadense,' *The Canadian Record of Science* 3, no. 4 (1888): 201-25; idem, 'Review of the Evidence for the Animal Nature of Eozoon Canadense,' *The Canadian Record of Science* 6, no. 8 (1895): 470-78; and idem, 'Review of the Evidence for the Animal Nature of Eozoön Canadense,' *The Canadian Record of Science* 7, no. 1-2 (1896): 62-77.

> was really the beginning of Foraminifers, this, like other groups in later times, appeared at first in one of its greatest and best forms, and its geological history consists largely in a gradual deposition from its high place as other and higher types little by little took its place; for degradation as well as elevation, belongs to the plan of nature.[67]

Eozoön was, therefore, the earliest illustration of a pattern of divine progression in which mature forms would be introduced into suitable environments. Dawson applied this principle broadly: quadrupeds, rodents, the great mammalian monsters of the deep, and other creatures all 'leap into existence in grand and highly developed forms' and surely would have left some trace of their previous development. The 'appearance of man fully developed' in the modern era thus confirmed the pattern established by elephantine animals in the Miocene, whales in the Eocene, and 'a vast multitude of other cases which meet the paleontologist in every direction.'[68]

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[67] John William Dawson, 'Address of J.W. Dawson,' *Proceedings of the American Association for the Advancement of Science* 24 (1875): 11.

An idealist version of natural history demanded that attention be paid to the transcendental nature of design in both the organic and inorganic worlds. Dawson noted the influence of both geology and astronomy in providing a 'stable foundation' for 'views of development and progress': while ancient cosmogonies clearly held such beliefs, their lack of knowledge in the physical sciences deterred them from the realization that the 'law of progress emanates from the mind and power of one creative Being.'[69] The nebular hypothesis and *Eozoön* thus both aided in the discernment of divine laws and alluded to the most perfect phase of continuous creation: humanity. As historian Jim Moore notes with particular reference to Dawson, mid-century Christian naturalists now saw that humanity's 'body and spirit are united to the whole creation, not by descent, but through the mind of the Creator.'[70]

Dawson's Fossil Men

Like most nineteenth-century prehistorians, Dawson believed that the contemporary Canadian Indian and European prehistoric humanity shared comparable

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[68] John William Dawson, 'The Antiquity of Man and the Origin of Species,' 390. Dawson Family Papers, McGill University Archives. Box 34, file 54.

[69] Dawson, *The Origin of the World*, 77-78.

[70] James R. Moore, *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms With Darwin in Great Britain and America, 1870-1900* (Cambridge: Cambridge University Press, 1979), 213.

Divisions	**Characteristics**	**Genesis**
Anthropic (modern) Age (c. 7000 years) (Neanthropic) (Palanthropic)	• modern humanity • continuation of the Cenozoic • post-glacial	• God ceased his work of creation
Cenozoic (tertiary) Age (Pleistocene) (Pliocene) (Miocene) (Eocene)	• man and land animals emerge • quadrupeds on land and modern types in sea	• humanity created
Mesozoic Age	• reptiles • flora distinct from Palaeozoic • earliest mammals introduced	• fish, sea animals created
Palaeozoic Age	• fishes introduced • dense forests • insects • 'humbler' reptiles	• sun and moon created
Archæan (Eozoic) Age	• ridges of land formed • seas created • low forms of animals and plants	• dry land emerged
Incandescant Globe	• molten mass form moving toward a solid crust • watery vapours condensed into heated oceans	• vapours separate to form sky and oceans
Nebula (c. 20 million years)	• vaporous mass	• light divided from darkness

Table 3.1: John William Dawson's Geological and Prehistoric Divisions

Source: Dawson, *The Meeting-Place of Geology and History*, chapter 2.

characteristics. In the *Canadian Naturalist and Geologist* Dawson reflected this common belief noting that 'nothing can be more striking to anyone acquainted with the American Indian than the entire similarity of the traces of pre-historic man in Europe to those which remain of the primitive condition of the American aborigines.'[71] Others clearly believed that Dawson was successful in teasing out this comparison: in an allusion that must have galled Dawson, one reviewer noted that the anthropologist had taken 'up a line of investigation initiated by Sir John Lubbock' in developing the comparison between 'the data of Hochelaga' (an ancient site believed to be in present-day Montreal) and 'the ancient stone people of Europe.'[72] There existed, however, profound differences between the Lubbockian view of the nineteenth-century Indian as a representative example of an earlier stage of humanity and that which Dawson held. Instead of a prehistoric past characterized by 'rudeness' and 'barbarism,' ancient inhabitants of both North America and Europe were comparatively civilized and well-developed.[73] Dawson reacted vociferously to the 'evolution' of humanity in both its contexts. First, as has been discussed frequently, he objected to the Darwinian view that humanity had evolved in common with animal species through the processes of natural selection and transmutation.[74] Second, and more germane to this discussion, he also objected to the notion that stone age 'man' had progressively and necessarily acquired the rudiments of technology and the trappings of 'civilization' before finally emerging in its celebrated nineteenth-century form. The fossil record did not illustrate such a pattern, and, as a corollary to his belief in the more recent antiquity of humanity, Dawson believed that such terms as 'Palaeolithic' and 'Neolithic' were misleading and should not be used.[75] The rejection of this nomenclature is not surprising, given that it was Lubbock who was responsible for coining and popularizing these terms. More substantively, however, Dawson argued that the rudeness or skill in making flint tools or weapons was not an accurate indicator of the antiquity or level of civilization achieved by past societies. Chipped (palaeolithic) and polished (neolithic) tools and weapons existed simultaneously in most primitive societies and did not necessarily indicate a barbaric condition.[76] Indeed, Dawson ironically noted that 'in our ignorance, born of too great civilization,' nineteenth-century archaeologists even lacked the requisite ability to discern a hoe from a spear head, tomahawk or scraper.[77] Along similar lines, Dawson objected to the tripartite division of the prehistoric past into the stone, bronze and iron ages. In his review of *Prehistoric Man*, Dawson ignored Wilson's central premise and noted the necessarily inconsistent application and development of these prehistoric distinctions: according to Wilson's own data, at the same time the bronze age existed in Peru, the copper age was present in the Mississippi valley and the stone age elsewhere in North America.[78] Moreover, prehistoric relics were also subject to inadvertent human agency, and Dawson pointedly noted that workers in Montreal, by removing the Hochelagian skeletons from sand and re-interning them in clay, would surely (and falsely) lead subsequent investigators to claim a greater antiquity for humanity in Canada than what the evidence actually indicated.[79]

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[71] John William Dawson, 'The Removal and Restoration of Forests,' *The Canadian Naturalist and Geologist* 3, no. 6 (1868): 416.

[72] Review of *Fossil Men and Their Modern Representatives*, by J.W. Dawson, *The American Naturalist* 15 (1881): 154.

[73] Dawson, *Fossil Men and Their Modern Representatives*, 56.

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[74] O'Brien, *Sir William Dawson*, chapter 5; Taylor, 'The Darwinian Revolution,' chapters 4-6; McKillop, *A Disciplined Intelligence*, chapter 4; Sheets-Pyenson, *John William Dawson*, 125-35; and Lewis Pyenson and Susan Sheets-Pyenson, *Servants of Nature: A History of Scientific Institutions, Enterprises and Sensibilities* (London: HarperCollins, 1999), 400-3.

[75] Dawson, *The Meeting-Place of Geology and History*, 17; and idem, *Fossil Men and Their Modern Representatives*, 56.

[76] Dawson, *Fossil Men and Their Modern Representatives*, 123; and idem, *Meeting-Place of Geology and History*, 17.

In the 1840s and 1850s French and British explorers were increasingly active in the investigation and appropriation of ancient Near Eastern culture. The researches of

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[77] Dawson, *Fossil Men and Their Modern Representatives*, 128.

[78] John William Dawson, 'On the Antiquity of Man; a Review of "Lyell" and "Wilson,"' *Edinburgh New Philosophical Journal* 19, no. 1 (1864): 43; and idem, *Fossil Men and Their Modern Representatives*, 208.

[79] J.W. Dawson, 'Notes on Aboriginal Antiquities Recently Discovered in the Island of Montreal,' *The Canadian Naturalist and Geologist* 5, no. 6 (1860): 431; and idem, *Fossil Men and Their Modern Representatives*, 70. Although Daniel Wilson did not share Dawson's vigorous mosaic presuppositions, he expressed concern that human agency and accident could lead to the confusion of fossil evidence and urged due discrimination when interpreting the 'mingling of relics of rudest barbarism with all the products of modern civilisation.' See Wilson, 'Trade and Commerce in the Stone Age,' in *The Lost Atlantis and Other Ethnographic Studies*, 127

Paul Emile Botta, Henry Rawlinson and Austen Henry Layard were of vital interest to the western Christian popular press, for even while ancient archaeological finds threatened to divorce sacred and secular history, they also offered the possibility of bestowing greater authority on the biblical account. It depended, of course, on how one interpreted the findings, and Layard soon realized that if he 'could attach a religious importance' to his discoveries, his efforts would be better recognized.[80] He was largely successful: 'as time rolls on,' the *Presbyterian Witness* in Halifax declared, 'each succeeding era brings to light some new fact, and contributes some additional quota of evidence in corroboration of the truth of that [biblical] record.'[81] Despite the fears that science would challenge orthodoxy, this argument had lasting resonance. Even into the twentieth century this remained a common theme, with Nathanel Burwash, principal of Victoria College, seeing ancient Near Eastern finds as confirming the scriptures, arguing that the 'more perfect ... [its] work, the more complete will be the light shed upon its [the Bible's] pages.'[82]

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[80] Bruce Kuklick, *Puritans in Babylon: The Ancient Near East and American Intellectual Life, 1880-1930* (Princeton: Princeton University Press, 1996), 43; and Gauvreau, *The Evangelical Century*, 110-11.

[81] 'Babylonian Discoveries,' *Presbyterian Witness*, 3 June 1854, 86; and Gauvreau, *The Evangelical Century*, 111.

[82] Nathanel Burwash, 'The Old Religion and the New Learning,' (Essay, 1906-1909). Nathanel Burwash Fonds, United Church of Canada/Victoria University Archives. Box C. Also see Walter Edwin Prescott, 'Archaeology and the Old Testament [n.d.].' Walter E. Prescott Fonds, United Church of Canada/Victoria

(continued...)

The increased attention directed toward ancient Near Eastern archaeology in the nineteenth century provided compelling images of previous great societies. Reverend M. Harvey noted the formative influence of Egyptian 'civilization and culture' on the Hebrew people prior to the Exodus, arguing that it 'would seem as though God had selected this country [Egypt], as the fittest training ground for that nation, through whom he meant to influence the world.'[83] Reflecting on the tendency to create mythical pasts, John Clark Murray, professor of philosophy at McGill, noted the universal nature of such historical visions, arguing that '[e]very race ... in its traditional fancies on man's origins, dallies with illusory memorials of a Paradise Lost, a vanished Golden Age.'[84] As the tenor of Murray's comment indicates, he queried this belief, noting that there was also a competing 'cross current of thought' in which the 'ideal state of life' was projected into the future rather than reflected on the past.[85] Although Murray was a convinced Christian, his sympathies lay more in a belief in the future ideal state of humanity than in any prior Golden Age. This view distinguished him markedly from a Mosaic view of the

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[82](...continued)
University Archives. Box 1, file 10.

[83] M. Harvey, 'The Monuments of Egypt as Illustrative of Scripture,' *Presbyterian Witness*, 17 February 1855, 25; and Dawson, *Archaia*, 33-34.

[84] J.Clark Murray, 'Human Progress,' *The University Magazine* 11 (1912): 156. On Murray see Leslie Armour and Elizabeth Trott, *The Faces of Reason: An Essay on Philosophy and Culture in English Canada 1850-1950* (Waterloo: Wilfrid Laurier University Press, 1981), chapter 5.

[85] Murray, 'Human Progress,' 156; and Armour and Trott, *The Faces of Reason*, 132.

human past. Although they shared a university campus, on this and other issues, Murray and Dawson differed.[86] Like many who rejected the strict linear ascent from monad to man, Dawson embraced the concept of an edenic age, arguing that earliest humanity lived in an 'ideal world' and a 'golden age,' which even in its advanced state featured the 'gradual development of nature in utility and beauty.'[87] The golden age was not only marked by moral probity, but, as the Nova Scotian naturalist David Honeyman remarked, by the presence of various prehistoric gigantic beings, including members of the human race. Explicitly rejecting a Lyellian chronology of geological and human history, Honeyman noted the Genesis account of the pre-diluvial Nephilim race, and provocatively speculated that perhaps they may have frequented the caves of Europe in which the remains of the last of the great mammoths were also found.[88] Although the biblical flood had caused their demise, vestiges remained, including Chang, the Chinese giant exhibited at the Paris Exposition in 1867, and the Cape Bretoner Angus McAskill who reportedly stood nearly eight feet tall.[89]

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[86] Most notably, they were at odds over the place of women in the university with Murray arguing for equal rights for female students. See Armour and Trott, *The Faces of Reason*, 106, 133-37.

[87] J.W. Dawson, 'Mosaic Books. Physical and Historical [Part III: Early Man and Eden, 1894].' Dawson Family Papers, McGill University Archives. Box 23, file 15; and idem, *Archaia*, 52.

[88] David Honeyman, *Giants and Pigmies: (Geological) Earth's Order of Formation and Life, and Harmony of the Two Records* (Halifax: Museum and Booksellers, 1887), 93-96. This volume was originally published in sixty-one installments in the *Presbyterian Witness* between 25 December 1885 and 19 February 1887. Also see Frank E. Allen, *Evolution in the Balances* (New York: Fleming H. Revell Company, 1926), 105-11. Allen was a minister of the Reformed Presbyterian Church in Winnipeg.

If belief in a previous golden age conditioned Dawson's opposition to the linear ascent of humanity, likewise it affected his interpretation of the earliest human fossils. While Dawson allowed that the formation of the earth stretched back some 20 million years, and that organic life (in the form of *Eozoön* most prominently) was likewise ancient, the possibility of human existence could be discerned only in the last quarter million or, with more certainty, during the last seven to ten thousand years.[90] While the discovery of Neanderthal man in the Neander Valley in 1856 provoked some discomfort to the idea of a golden age of humanity, there were several explanations available to combat the notion that these fossils represented a transitional stage in the march from simian to civilization. Most obviously, Dawson minimized the similarities of prehistoric human relics with ape-like populations and emphasized the common characteristics that Neanderthals shared with contemporary humanity. Neanderthal man's 'prehistoric antiquity has been assumed by many writers,' Dawson noted, 'and its low forehead, prominent superciliary ridges, and general flatness, giving a more ape-like air than that of the heads of any modern tribes... .'[91] Instead, extending his theme on the common origins of humanity further than Lubbock would have found comfortable, Dawson noted that 'the characteristics for which this skeleton is eminent, are found, though perhaps in a less degree, in the rude tribes of America and Australia.'[92] If this observation was unconvincing, any discrepancies between the Neanderthal and human forms could be accounted for by what historian Loren Eiseley has dubbed the 'wild man hypothesis,' whereby Neanderthal man is equated with 'those fallen, feral creatures who wander in the green forests of medieval romance.'[93] Neanderthal man was thus representative of 'one of those wild men, half crazed, half idiotic, cruel and strong, who are always more or less to be found living on the outskirts of barbarous tribes ... .'[94] Although Neanderthal man was fully human, the descent of this specimen from civilized society was thus accentuated twofold, and it was this 'outcast' from a 'barbarous' tribe that the evolutionary anthropologists were erroneously attempting to place within the simian ascent to humanity. Dawson noted that even in contemporary times similar creatures existed, though 'civilized societies ... consigned [them] to the penitentiary or to the gallows, when their murderous propensities manifest[ed] themselves.'[95] Neanderthal man was therefore as fully human as its nineteenth-century form, though its fate limited it to the margins of society. Given the common assumption that equated the Neanderthal with contemporary 'savages' it is not surprising that nineteenth-century Natives suffered from a similar verdict.

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[89] Honeyman, *Giants and Pigmies*, 96.

[90] Dawson, *Geology and History*, 21-22. See Table 3.1 for Dawson's rough chronology of deep time and the prehistoric development of humanity.

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[91] Dawson, 'On the Antiquity of Man,' 53.

[92] Dawson, 'On the Antiquity of Man,' 53-54.

[93] Loren Eiseley, *Darwin's Century: Evolution and the Men Who Discovered It* (New York: Doubleday Anchor Books, 1958), 274-75.

[94] Dawson, 'On the Antiquity of Man,' 54.

According to Dawson, the Neanderthal find was an anomaly, and its 'contribution' to the ascent of humanity could be easily explained away. The evidence it presented with regard to humanity's simian personality was isolated, and Dawson took comfort in the fact that other fossil findings did not necessarily lead to similar conclusions and, in fact, could be more easily incorporated into a Mosaic account. In 1868 workmen constructing a railway on the north bank of the Vézère River in France uncovered the Cro-magnon rock shelter or *abri*. When this site was subsequently excavated by Louis Lartet (the son of the famous French paleontologist, Edouard Lartet), he found five skeletons, together with some stone tools and the remains of extinct animals. Despite considerable variation among the skeletons, the Cro-magnon remains differed considerably from Neanderthal man in that they possessed advanced morphological features and seemingly represented the advent of a more 'progressive' race in western Europe.[96]

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[95] Dawson, 'On the Antiquity of Men,' 54.

[96] Fred H. Smith and Frank Spencer, 'Cro-Magnon,' in *History of Physical*

(continued...)

The Cro-magnon findings emerged during a time when no accepted prehistoric lineage had been established. Edouard Lartet was the first to argue that the skeletons were morphologically modern and placed their origin in the Pleistocene era. Many of his contemporaries accepted his conclusion. Others preferred a more recent origin: both Boyd Dawkins and Gabriel de Mortillet, for example, maintained that the modern character of Cro-magnon placed it in the Neolithic period.[97] For very different reasons, J.W. Dawson also questioned the palaeolithic status of Cro-magnon, even citing Dawkins in support of his case.[98] While Dawson was reluctant to agree to claims for a great antiquity for the Cro-magnon skulls, he was comfortable with the belief that they represented the oldest known human fossils in the world. Their character was remarkably modern and, ironically drawing from the work of the French polygenist Paul Broca, Dawson noted that the 'great volume of the brain, the development of the frontal region, the fine elliptical profile of the anterior portion of the skull, and the orthognathous form of the upper facial region, are [all] incontestably evidences of

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[96](...continued)
Anthropology, 2 vols., ed. Frank Spencer (New York: Garland Publishing, 1997), I: 298-301. Also see Dominique Gambier, 'Fossil Hominids from the early Upper Palaeolithic (Aurignacian) of France,' in *The Human Revolution: Behavioural and Biological Perspectives on the Origins of Modern Humans*, ed. Paul Mellars and Chris Stringer (Edinburgh: Edinburgh University Press, 1989), 194-211.

[97] This paragraph draws from Smith and Spencer, 'Cro-Magnon,' 298.

[98] Dawson, *Fossil Men and Their Modern Representatives*, 191.

superiority which are met with usually only in the civilized races.'[99] The grand development of the crania was equalled by what was 'known' of Cro-magnon. Edouard Lartet had argued that the findings in the Cro-magnon *abri* were a consequence of a ceremonial burial rather that an accidental internment.[100] Dawson welcomed such evidence of primitive spirituality. One of the Cro-magnon specimens showed evidence of a wound that perhaps had taken two weeks to become fatal; she (the fossil was female) likely required attention for '[w]ith the people of Cro-magnon, as with the American Indians, the care of the wounded was probably a sacred duty, not to be neglected without incurring the greatest disgrace, and the vengeance of the guardian spirits of the sufferers.'[101] Indeed, Dawson believed that prehistoric populations could possess a 'purer' faith than his own era, for the 'iron age' had brought rampant materialism and idiolatry. In an era that celebrated the nineteenth-century western form, this elevation of 'primitive' spirituality sometimes brought ridicule: one reviewer sarcastically noted the 'wisdom' of Dawson in affirming 'that the prehistoric religions, and what we call heathenism or animism of untaught tribes, were nearer to God and truth than are either the ritualisms and idolatries or the materialistic scepticisms of more civilised times when men, "professing themselves to be wise, become fools."'[102]

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[99] Dawson, *Fossil Men and Their Modern Representatives*, 196; idem, *Meeting-Place of Geology and History*, chapter 4, *passim*; and idem, *The Bible and Science*, 30.

[100] Smith and Spencer, 'Cro-Magnon,' 298.

[101] Dawson, *Fossil Men and Their Modern Representatives*, 191.

The portrait of human development that Dawson painted differed significantly from that of both Enlightenment and evolutionary anthropologists. In their own way, both the Neanderthal and Cro-magnon finds illustrated the unity and grandeur of humanity. Neanderthal was more human than simian, and its contemporary counterpart could still be found in more 'savage' environments. Cro-magnon and other similar finds could claim a more celebrated legacy.[103] In a review of a discussion on Darwinian theory at the American Association for the Advancement of Science in 1873, the reviewer noted that Dawson's comments would lead one to believe that if 'the man of Cromagno [sic] or Mentone had been sent to Harvard, he would have been graduated with the full honours of an average American student.'[104] This view of prehistory contradicted assertions of the semi-brutal character of primitive humanity, and the bones of Cro-magnon 'thus justify the tradition of a Golden and Edenic Age, and mutely protest against the philosophy of progressive development as applied to man ... .'[105] This contrasted dramatically with the emerging derivation thesis. In the 1870s Dawson had, in particular, turned his attention toward Ernst Haeckel as some of the German evolutionist's works were translated into English. Though he recognized Haeckel as an eminent anatomist and physiologist, Dawson complained that his monistic philosophy denied any spiritual essence in humanity and placed it on a linear ascent from 'brutes': lemurs in the eocene, apes in the miocene, and finally humans in the post-pliocene. Although with disagreeable irony Dawson did admit that the fossil record was incomplete, he noted that 'the contradiction between this [Haeckel's model] and the high type of the prehistoric skulls seems absolute... .'[106]

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[102] 'Primitive Man,' *Nature* 22 (27 May 1880): 82.

[103] Dawson also pointed to the fossils found by Emile Cartailhac and Dr. Rivière as confirmation of his theories on the majestic human past. See Dawson, *Meeting-Place of Geology and History*, 58; and idem, *The Bible and Science*, 30.

[104] 'The American Association for the Advancement of Science,' *Nature* 8 (11 September 1873): 392. The meetings were held in Portland, Maine that year.

[105] Dawson, *Meeting-Place of Geology and History*, 66.

The correlation of prehistoric to primitive humanity supplied further evidence for the degenerationist argument. Jacques Cartier had visited the ancient Indian village of Hochelaga (believed to be in present-day Montreal) in 1535 and returned in 1541 on his third trip to the so-called 'new world.' While his description of his 'findings' was vague, and the location and inhabitants of the settlement has been the subject of considerable debate, it appears that Cartier came upon an Iroquoian village that was well-established given its quantity of cleared agricultural land. However, by the early seventeenth century the Hochelaga site had either been destroyed or abandoned: the French explorer Samuel de Champlain made no note of it on his voyage up the St.

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[106] Dawson, *The Bible and Science*, 31; and idem, 'Haeckel on the Evolution of Man,' *Princeton Review* 5 (May 1880): 444-64. While he used the limited fossil record to defend the grandness of ancient humanity, he also criticized evolutionists when they used this argument to explain the lack of 'missing links.' See Dawson, *The Origin of the World*, 213.

Lawrence in 1603 and no more was heard of the site until Sieur de Maisonneuve selected the island for the future location of Montreal.[107]

Dawson's examination of what he believed was the ancient Hochelaga site indicated how the process of degeneration might occur. In 1860 workmen uncovered fossils 'evidently of American type' between Mansfield and Metcalfe streets near McGill University.[108] Dawson quickly intervened, and an excavation of the Dawson site, as it came to be known, revealed the usual remnants of a well-established settlement, some bones and skeletons, and the initial discovery of three nearly perfect skulls, one female and two male.[109] Dawson noted that these skulls were dolichocephalic (long-headed) with 'a very respectable development of brain,' and, in contrast to the conclusions of Samuel Morton and the American school of ethnology, differed little from those types found among prehistoric European races.[110]

Dawson believed it likely that the Montreal discovery indicated the location of

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[107] Dawson, *Fossil Men and Their Modern Representatives*, 40; and idem, 'Notes on Aboriginal Antiquites,' 447. For an important study various aspects of the Dawson site, see Bruce Trigger, 'Hochelaga: History and Ethnohistory,' in *Cartier's Hochelaga and the Dawson Site*, by James F. Pendergast and Bruce Trigger (Montreal: McGill-Queen's University Press, 1972), 3-93.

[108] J.W. Dawson, 'Notes on Aboriginal Antiquities,' 430.

[109] Other crania were subsequently discovered and, according to Dawson, confirmed his initial speculations. See J.W. Dawson, 'Additional Notes on Aboriginal Antiquities found at Montreal,' *The Canadian Naturalist and Geologist* 6, no. 5 (1861): 364.

[110] Dawson, 'Notes on Aboriginal Antiquities,' 433-34.

Cartier's Hochelaga, and that the fossil and archaeological evidence pointed toward a semi-civilized people who lived in dwellings 'more comfortable and suited to the habits of their builders than the huts of mud and rough stone occupied by thousands of the peasants of modern Europe.'[111] According to Dawson, Cartier's visitation to Hochelaga had been fortuitous in one regard. If he had visited a few centuries earlier, its level of civilization would have been even more apparent, and he would have found it connected to 'a great and powerful group of similar nations extending to the valley of the Ohio.' However, if he had visited it a century later, he would have found no village, for the Hochelagians were 'but a remnant of an ancient and decaying nation' which had vague relations with the extinct mound builders of the American midwest.[112] Although he admitted that these views constituted 'little more than mere speculation,' Dawson concluded that '[o]ur primitive Algonquins of Montreal may thus claim to have been a remnant of one of those old semi-civilized races, whose remains scattered over various parts of North America, have excited so much speculation.'[113] Their decline was not due to any European influence: the 'unwarlike' Hochelagians had decayed while hemmed in-between the 'aggressive Iroquois' to the south and the 'barbarous Algonquins' to the north.[114] Faced with their own belief in a Golden Age, those influenced by the Mosaic account found images of previous majestic aboriginal societies compelling: drawing explicit references to Heinrich Schliemann's archaeological investigations in ancient Greece, the anti-evolutionist John Campbell argued that '[o]ur Indians are no new unsophisticated race or races in whose persons and achievements the problem of social evolution many be studied, ... [but rather] are the remnants of great nations long grown old and almost faded out of memory.'[115]

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[111] Dawson, *Fossil Men and Their Modern Representatives*, 82.

[112] Dawson, *Fossil Men and Their Modern Representatives*, 82; idem, 'Notes on Aboriginal Antiquities,' 448-49; and Trigger, 'Hochelaga: History and Ethnohistory,' 55.

[113] Dawson, 'Notes on Aboriginal Antiquities,' 449.

Dawson rightly found enormous significance in the Hochelaga discovery. In *Fossil Men and Their Modern Representatives*, his most complete examination of the prehistoric world, Dawson took as his 'first starting point the primitive town of Hochelaga,' an examination of which would 'correct some of the fanciful and enthusiastic impressions of those who look back on prehistoric times in Europe from the, perhaps, too elevated standpoint of a mature civilization ... .'[116] It had become too common to believe 'that the savage hunters of our day are the primeval type of man ... [and] to gather up and parade all that is discreditable and low in the condition and manners of the modern savage, so as to approximate him as nearly as possible to brutes....'[117] Instead of displaying the simian aspects of prehistoric and primitive humanity, it was necessary to note its common features with contemporary civilized society. In addition to the physical similarities that the fossil record revealed, primitive religion shared enough features with Christianity to indicate a common spiritual heritage: 'Whatever may be fancied as to imagined prehistoric nations,' Dawson noted, 'it is certain that no people now existing, or historically known to us, is so rude as to be destitute of some hopes or fears in reference to the future, some traditions as to the distant past.'[118]

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[114] Dawson, *Fossil Men and Their Modern Representatives*, 46; and idem, 'Notes on Aboriginal Antiquities,' 448-49.

[115] John Campbell, 'The Present Position of American Anthropology,' *Transactions of the Royal Society of Canada* 1 (1895): 78; and idem, 'The Descent of Man,' in *Questions of the Day, Lectures Delivered in the David Morice Hall, Montreal in 1883-84* (Montreal: William Drysdale & Co., 1885), 89-111, especially 99-100.

[116] Dawson, *Fossil Men and Their Modern Representatives*, 4.

The Mosaic interpretation of prehistory sought to reclaim both prehistoric man and the nineteenth-century Indian from their externally imposed simian personality. However, while the Mosaic human umbrella included both Neanderthal and Native, it did not necessarily envision a partnership between the 'civilized' and 'uncivilized' in the new world. America was, Dawson noted, in many ways the epitome of Europe with '[s]imple and industrious colonists spreading themselves over new lands ... [and] barbarous and migratory tribes and families wandering from the centres of civilization over the untilled wastes, and then recoiling in successive waves on the more cultivated tribes with rude and desolating violence.'[119] Such a statement, of course, could be interpreted according to racial extremes. In a review of *Fossil Men*, one correspondent noted Dawson's use of the biblical text, 'God shall enlarge Japhet, and he shall dwell in the tents of Shem, and Canaan shall be his servant.'[120] 'This means,' the reviewer continued, '... that the Aryan or Japetic races were to be endowed with "the higher control of the physical forces and the greater power of expansion and propagandism," in short, amongst other exploits, to exterminate the Redskins and colonise America.... .'[121] While Dawson obviously did not consider the extermination of 'the Redskins' an 'exploit' in this or any other passage, one of the principal themes of the Mosaic account was the inevitability with which one group would be conquered and another would come to dominate.

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[117] Dawson, *Fossil Men and Their Modern Representatives*, 68; and idem, *The Bible and Science*, 35.

[118] Dawson, *The Origin of the World*, 35-36; and idem, *The Bible and Science*, 35.

The Mosaic cosmogony was ultimately dependent upon a common cultural context. As Carl Berger notes, the trend toward a fragmentation of the amalgam of science and religion gained momentum in Canada with the death of John Dawson in 1899.[122] As William Leitch realized, natural theology itself contained inherent tendencies toward the separation of natural and divine law. Beyond the debate over *Essays and Reviews*, inklings of this fragmentation had been evident in mid-Victorian anthropological thought in Canada: J.M. Buchan began his presidential address on 'the domain of Anthropology' before the Canadian Institute with Alexander Pope's often-quoted line, 'The proper study of mankind is man.'[123] Buchan acknowledged that Pope intended that the study of 'man' should place particular emphasis upon his moral nature. The contrast between the sentiments of Queen Anne's age and those of the nineteenth century were apparent, however: 'the anthropologist of to-day,' Buchan noted, 'without leaving man's moral nature out of account, feels more at home in questions about the shape and size of skulls, the height, weight, and colour of different races ... the different parts of their skeletons ... and the development of civilization on the earth.'[124] While such statements were obviously not revisionist by the 1880s, it is significant that Buchan began his discussion on races with an appeal to Huxley and not to Genesis. By the Great War era, the fragmentation of a common cultural context had become more apparent. Reverend W.R. Harris, a frequent contributor to the *Archæological Reports* and president of the Ontario Archaeological Society between 1919 and his death in 1923, objected strenuously to this trend arguing that to 'place Faith and Science in a state of perpetual collision, by which Faith is corrupted, spoiled and laid waste, and Science separated from it seems ... to be the avowed intent of modern scientists. By this manifold and hostile separation belief in the Supernatural is leaving our homes... .'[125] As Daniel Buchanan noted and Harris perhaps regretted, no 'Inquisition' existed to enforce the amalgam of science and scripture, and faith and scientific fact could increasingly operate in separate spheres.

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[119] Dawson, *Fossil Men and Their Modern Representatives*, 67.

[120] This passage from *Fossil Men* actually reads: '"God shall enlarge Japhet, and he shall dwell in the tents of Shem; and Canaan" (the representative here of unprogressive humanity) "shall be his servant."' See Dawson, *Fossil Men and Their Modern Representatives*, 334.

[121] 'Primitive Man,' *Nature* 22 (27 May 1880): 82.

[122] Berger, *Science, God, and Nature*, 75-76.

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[123] J.M. Buchan, 'Complexion, Climate and Race,' *Proceedings of the Canadian Institute* 2 (1883-1884): 6.

[124] Buchan, 'Complexion, Climate and Race,' 7.

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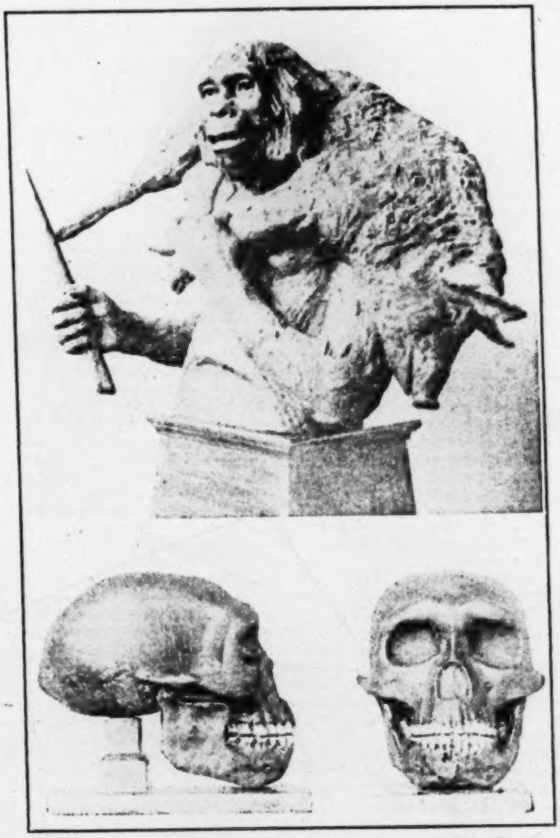
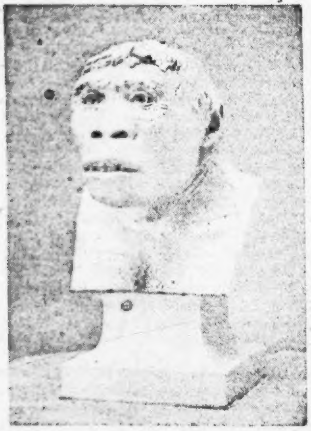
[125] W.R. Harris, 'The Ape Man,' *Archæological Report, 1916* (Toronto: A.T. Wilgress, 1916), 49. On Harris, see Rev. Edward Kelly, 'Obituary. Very Reverend Dean Harris,' *Annual Archæological Report 1923* (Toronto: Clarkson W. James, 1924), 140-41.



THE HEIDELBERG MAN WITH FALSE CHIN ATTACHED.
Drawn by M. Masere.

Figure 3.1: Heidelberg Man. W.R. Harris argued that Heidelberg Man (along with other representatives of 'Ape-Men') were sometimes frauds foisted on the public by small numbers of scientists who sought to drive wedge between 'real science and Christianity.' This image also presents human ancestors as 'hunters,' a typical vocation in the sequence from simian to civilized.

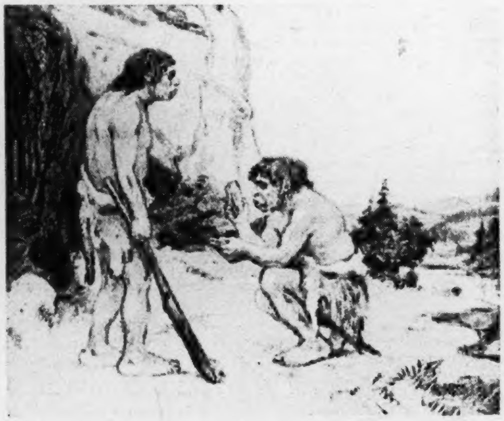
Source: W.R. Harris, 'The Ape Man,' *Annual Archæological Report, 1916*, 53.



Primitive Man, the Pithecanthropus Erectus. A conception of J. H. McGregor of the Ape-man of Java.

Figure 3.2: Primitive Man or Pithecanthropus Erectus. While for W.R. Harris figures such as these were misrepresentations, they illustrate common perceptions of the 'missing link': thickly muscled men with prominent jaws, typically engaged in hunting. Female figures rarely appeared in illustrations of the 'missing link.'

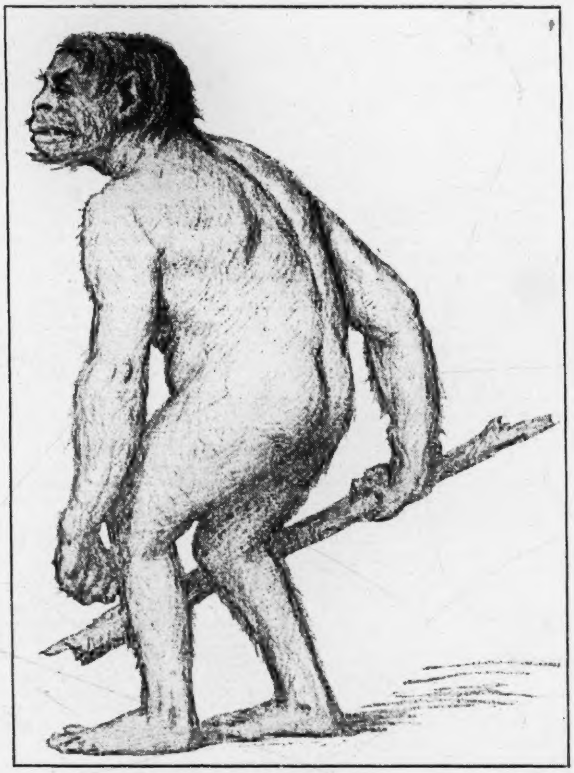
Source: W.R. Harris, 'Earth's First Man,' *Annual Archæological Report, 1917*, 65.



Original Man. An Assumption by W. J. Thomson.

Figure 3.3: An 'Assumption' of Original Man

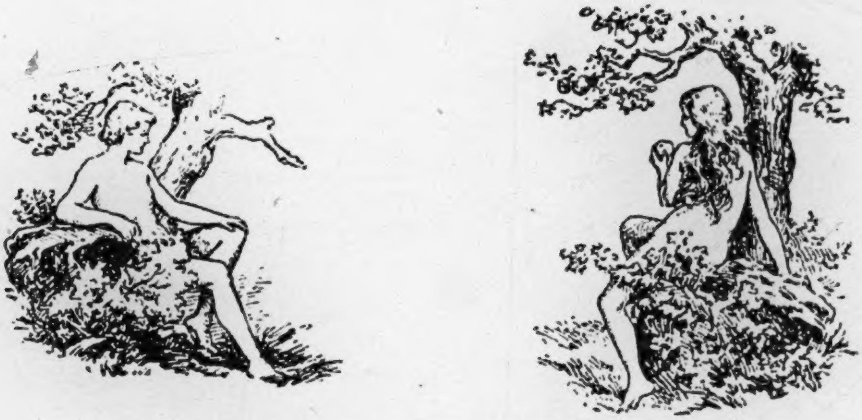
Source: W.R. Harris, 'Earth's First Man,' *Annual Archæological Report, 1917*, 68.



THE "DAWN MAN." Drawn from imagination by J. Cooke.

Figure 3.4: The Dawn Man or Piltdown. In contrast to Charles Hill-Tout, W.R. Harris saw Piltdown as a fraud.

Source: W.R. Harris, 'The Ape Man,' *Annual Archæological Report, 1916*, 58.



First man and woman. Genesis, Chap. 1.

Figure 3.5: The Mosaic First Pair. In contrast to representations of the 'missing link,' images of the first pair had a distinctly modern human morphology and seemed ill-equipped to fend for themselves in the 'survival of the fittest.'

Source: W.R. Harris, 'Earth's First Man,' *Annual Archæological Report, 1917*, 64.

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Climbing Jacob's Ladder: Inventing the Victorian Synthesis

> ... but if we judge, (as we are perfectly justified in doing,) by the present-day products of those who occupy similar situations in the lower stages of life, he [the prehistoric worker] did not do much, for although he had large supplies of raw material, he had no iron tools.
>
> David Boyle[1]

> ... from mere guttural grunts and signs to rich vocabularies and well stored libraries; from the worship of the fetish to the worship of the supreme God; and so forth, and so on. These have certainly been steps, gradations, by which the higher races have advanced since prehistoric time, and made all things their ministering servants. And the end is not yet. Progress is always beginning.
>
> M. MacGillvray[2]

In 1994 Richard Herrnstein and Charles Murray penned *The Bell Curve: Intelligence and Class Structure in American Life*, a work that was without question one of the most controversial social science studies in recent decades. While appropriating a contemporary academic facade in appearance and nomenclature, *The Bell Curve* explored (and even located itself within) notions of biology and race that had been central to the study of anthropology over the past two centuries. As has been frequently noted, *The Bell Curve* does not tell one much about class structure or even about intelligence; rather, the principal theme of its most controversial and inflammatory section (Section III) argues that innate racial differences exist to some degree at least, and are manifestly apparent in 'arbitrary' measures such as intelligence tests, educational levels, and poverty, crime and illegitimacy statistics.[3] Such a view, of course, sparked outrage from a wide variety of perspectives.[4] However, as Stephen Jay Gould reflects, the arguments presented in *The Bell Curve* were scarcely original and led him to re-read the grandfather of modern academic racism, Joseph-Arthur, comte de Gobineau (1816-1862), who had made similar claims about the innate differences and abilities of certain racial groups.[5] Indeed, Gould's critique of *The Bell Curve* draws significantly from the example of Gobineau, noting that the influential French academic's foundational principle divided humanity into three crude groups, with white races exhibiting a genetic intellectual and moral superiority over 'yellows' and 'blacks.'[6] Although replete with supposedly compelling statistics, at its core *The Bell Curve* simply re-visits one of the dominant historical themes of anthropological thought: that racial differences are responsible for corresponding levels of 'attainment.'

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[1] David Boyle, 'Six Lectures [Lecture V: 1-2].' David Boyle Papers (DBP), Archives and Library, Royal Ontario Museum, Toronto. Until recently the David Boyle Papers at the Royal Ontario Museum were divided between the Department of Anthropology and the Archives and Library. They are now all located in the latter.

[2] M. MacGillivray, 'The Men of the Ages of Stone,' *Queen's Quarterly* 25, no. 3 (1918): 261.

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[3] Richard J. Herrnstein and Charles Murray, *The Bell Curve: Intelligence and Class Structure in American Life* (New York: The Free Press, 1994), especially chapters 13-15. Herrnstein and Murray do not ignore the work of J. Philippe Rushton, a developmental psychologist at the University of Western Ontario who argues for a racial ordering of three races—Mongoloids, Caucasoids and Negroids—on a variety of measures from brain size to marital stability. They maintain that as a science there is nothing wrong with Rushton's work in principle, and that time will tell whether he is wrong in his facts. See Herrnstein and Murray, *The Bell Curve*, 642-43.

[4] For a sample see Steven Fraser, ed., *The Bell Curve Wars: Race, Intelligence, and the Future of America* (New York: BasicBooks, 1995); Gould, *The Mismeasure of Man*, 367-90; and Joe Kincheloe, Shirley R. Steinberg and Aaron D. Gresson III, ed., *Measured Lies: The Bell Curve Examined* (New York: St. Martin's Press, 1996).

[5] Gould, *The Mismeasure of Man*, 379-80.

Principles of racial typology were not confined to nineteenth-century France or to contemporary America of course. In 1885 Chancellor John Alexander Boyd, in an important ruling on *Attorney General of Ontario* v. *St. Catherine's Milling and Lumber Company*, characterized the Saulteaux—who were not formally participants in this foundational case that helped determine the legal status of Natives and aboriginal lands—as 'barbarians' and as 'a more than usually degraded Indian type.' Boyd's comments were particularly significant in that they marked the first time that such racist language had found its way into Canadian judicial opinion.[7] Although Boyd's comments were delivered in the racially-charged atmosphere following the 1885 Northwest Rebellion, his decision and nomenclature also reflected the changing status of contemporary Natives within late nineteenth-century anthropological discourse. During the last decades of the nineteenth century environmental models of human development were increasingly eschewed in favour of racial ones, and a Victorian synthesis emerged in which various racial groups were assigned a typology from which variation was unlikely. Although the developmental metaphors employed by racial evolutionists sometimes resembled environmental models of humanity's 'progress,' there were obvious and significant differences. The possibility of parallel models of development championed by some Enlightenment evolutionists was now conflated into a linear line of progress which, in its more extreme forms, made little distinction between concepts of culture and biology. Although this model of evolutionary progress sometimes drew upon elements of the so-called Darwinian revolution, more often the emergence of racial (or, as it is called by some, classical) evolution in the latter nineteenth century looked beyond Darwin.[8] As a prelude to the emergence of racial explanations of human development, the mound builder controversy—one of the principal prehistoric debates of the nineteenth century—acted as a discursive site in which the much different models of Enlightenment and racial evolution became readily apparent.

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[6] For discussion of the historical context of *The Bell Curve*, see Gould, *The Mismeasure of Man*, 379-90. Gobineau used these racist terms.

[7] Sidney L. Harring, *White Man's Law: Native People in Nineteenth-Century Canadian Jurisprudence* (Toronto: University of Toronto Press, 1998), chapter 6, quotation from page 138; also see S. Barry Cottam, 'An Historical Background of the *St. Catherine's Milling and Lumber Co.* Case,' (unpublished MA thesis, University of Western Ontario, 1987); and [A.H.F. Lefroy], 'Regina v. The St. Catharines [sic] Milling and Lumber Company,' in *The Ontario Reports, Volume X*, ed. James F. Smith (Toronto: Rowsell & Hutchison, 1886), 196-235. The company's name differed from that of the southern Ontario city.

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[8] For useful introductions to classical evolution see Trigger, *Sociocultural Evolution*, chapter 5; Peter Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (Baltimore: The Johns Hopkins University Press, 1988), 133-41; and Robert L. Carneiro, 'Classical Evolution,' in *Main Currents in Cultural Anthropology*, ed. R. Naroll and F. Naroll (New York: Appleton-Century-Crofts, 1973), 57-122.

Prelude to Racial Evolution: The Mound Builder Controversy

Although the first recorded investigations of the North American mounds date back to the late eighteenth century, it was only with the advent of western expansionism and the establishment of professional associations dedicated to exploring the prehistory of the continent that Americans embraced the myth of the mound builders with enthusiasm.[9] These mounds, which reached their greatest concentrations in the Mississippi and Ohio River basins but were also present in southern Manitoba and around the Great Lakes region, sometimes reached impressive heights: E. G. Squier and Dr. E. H. Davis—who made the most significant contribution to the study of the mounds in the nineteenth century—claimed that the celebrated Grave Creek mound in Virginia reached a height of seventy feet, while that at Cahokia, Illinois reached a height of ninety feet with a circumference of some 2,000 feet.[10] The presence of such impressive human-made features spurred much speculation and the myth of the mound builder became a dominant theme in early American explorations of prehistory.[11] A variety of scientific and pseudo-scientific explanations were put forth in order to explain their presence: some saw the mounds as predecessors of Joseph Smith and the Mormon faith, while various other bizarre and exotic theories attributed the mounds to the existence of long-lost Welsh, biblical, or European groups.[12] What is clear, however, is that few were initially willing to acknowledge a connection between the settled, more 'progressive' agrarian population that had constructed the ancient earthworks, and the apparent static hunting and gathering Native culture that confronted Euro-american settlers.

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[9] For a general treatment of the mound builders see Robert Silverberg, *Mound Builders of Ancient America: The Archaeology of a Myth* (New York: Graphic Society Ltd., 1968). The American Antiquarian Society was founded in 1812 and its first publication in 1820 contained several essays on the mound builders. More important was the establishment of the Smithsonian Institution in 1846. In the *Smithsonian Contributions to Knowledge* Series, five of the initial eight volumes contained essays on the mound builders, the first of which was E. G. Squier and E. H. Davis' *Ancient Monuments of the Mississippi Valley* in 1848. See Silverberg, *Mound Builders*, 59-60, 111-12.

[10] E.G. Squier and E.H. Davis, *Ancient Monuments of the Mississippi Valley; Comprising the Results of Extensive Original Surveys and Explorations*. Smithsonian Contributions to Knowledge, no. 1. (New York: Johnson Reprint Corportation, 1965 [1848]), 5. For an appraisal of the contribution of Squier and Davis to the mound builder debate, see Patterson, *A Social History of Anthropology*, 24-25; Robert E.

(continued...)

Although the mound builder question had previously been raised, it was not until the mid-nineteenth century that colonial Canadian scholars turned their attention toward

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[10](...continued)
Bieder, *Science Encounters the Indian: The Early Years of American Ethnology* (Norman: The University of Oklahoma Press, 1986), 108; Curtis M. Hinsley, *The Smithsonian and the American Indian: Making a Moral Anthropology in Victorian America* (Washington: Smithsonian Institution Press, 1981), 35-37; and William Stanton, *The Leopard's Spots: Scientific Attitudes Toward Race in America, 1815-59* (Chicago: The University of Chicago Press, 1960), 82-88. In a letter to Franz Boas, E.B. Tylor expressed doubt over whether Squier's measurements were accurate—perhaps fearing that they were inflated—and desired other surveys with closer measurements. E.B. Tylor to Franz Boas, 13 February 1897. Boas Professional Papers, American Philosophical Society, Philadelphia.

[11] Donald J. Blakeslee, 'John Rowzxe Peyton and the Myth of the Mound Builders,' *American Antiquity* 52, no. 4 (1987): 789; and Silverberg, *Mound Builders*, *passim*.

[12] For exploration of some of these theories see Curtis Dahl, 'Mound Builders, Mormons, and William Cullen Bryant,' *New England Quarterly* 34, no. 2 (1961):178-90; and Silverberg, *Mound Builders*, especially chapters 2 and 3.

this matter.[13] In July 1857, the Canada West government organized and dispatched from Toronto a party of forty-four individuals for the purpose of determining the best route between Lake Superior and the Red River district. Chief among their number was Henry Youle Hind, on leave from his position as professor of Chemistry and Geology at Trinity College, Toronto, whose task was to act as the official geologist and naturalist for the expedition.[14] While exploring the Souris River in July 1858, Hind's party happened upon and briefly explored a number of conical mounds that his Métis guides said were the remnants of the Mandans,[15] who were thought to be a once powerful and numerous tribe which resided along the Missouri.[16]

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[13] For example, the initial issue of the *Canadian Journal* reported on a remarkable Indian burying ground in Beverly Township, ten or twelve miles from Dundas that had reportedly been visited by Reverend C. Dade in 1836. See Rev. C. Dade, 'Indian Remains,' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 1, no. 1 (1852): 6. Also see [L.C. Kearney], 'An Old Letter About the Origins of the Indians,' *Archæological Report 1899* (Toronto: Warwick Bro's & Rutter, 1900), 164-65.

[14] Henry Youle Hind, *Narrative of the Canadian Red River Exploring Expedition of 1857 and of the Assinniboine and Saskatchewan Exploring Expedition of 1858*, 2 vols. (New York: Greenwood Press, 1969 [1860]), I: 5-8.

[15] As later speculation noted, it 'is probable that the mounds are attributed to the Mandans simply because the Manitoba Indian has been told by his father that they were built by a people that has passed away, and ... the Mandans fill the bill in that respect... .' See 'Prehistoric Times,' *The Toronto Mail*, 14 September 1885, 4. While the 1837 small pox epidemic decimated the Mandans, a small Mandan community still exists. See Tressa L. Berman, 'Mandan,' in *Encyclopedia of North American Indians*, ed. Frederick E. Hoxie (Boston: Houghton Mifflin Company, 1996), 353-54.

[16] Hind's party opened one of the mounds and penetrated it six feet. Hind, *Narrative of the Canadian Red River Exploring Expedition*, I: 299. For brief analyses of

(continued...)

The discovery of the Manitoba mounds by the Hind expedition spurred a half century of debate on the origins and nature of this seemingly mysterious race. Aside from a few cases, the speculations of American observers found only a small audience in Canada.[17] Nonetheless, academic and lay scholars alike presented theories regarding prehistoric humanity that did much to reveal their own cultural biases. For instance, Daniel Wilson's explorations into the prehistory of North America naturally devoted a great deal of attention to the discovery of the mounds. Relying upon literature emerging about the American mounds as well as his personal observations from his trip to the Ohio Valley in 1856, Wilson argued that the mound builders were likely the northern fringe of a 'semi-civilized' society. Their character appeared to differ essentially from that of the nineteenth-century Native: the mound builders were seen as a settled, agrarian, populous, and highly religious people that possessed many of the essential characteristics of nineteenth-century definitions of civilization.[18] Most telling, Wilson's four-age theory of civilization placed an obvious emphasis on the use of specific metals

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[16](...continued)
the Manitoba mounds and the myth of the mound builders see Gwen Rempel, 'The Manitoba Mound Builders: The Making of an Archaeological Myth, 1857-1900,' *Manitoba History* no. 28 (Autumn 1994), 12-18; and E. Leigh Syms, *Aboriginal Mounds in Southern Manitoba: An Evaluative Overview*. Parks Canada Manuscript Report no. 323 (Ottawa: Environment Canada, 1978).

[17] Rev. John Campbell, for example, traced the mound builders to the ancient Hittites of the Ancient Near East. This was a minority position among Canadian scholars. See 'The Mounds in Manitoba,' *The Toronto Mail*, 21 September 1885, 4.

[18] Wilson, *Prehistoric Man*, I: 360-65.

as characteristic of the age: the ability to make use of metallurgy marked the first stages of human progress.[19] Moreover, the size and complexity of the mounds themselves spoke to the 'manifest skill, and even science,' that the builders of the mounds possessed.[20] So impressive were these monuments that Wilson argued that even the most skilled engineer of his day would be hard-pressed to replicate the knowledge exhibited in the construction of the mounds.[21] Others concurred that the mounds were indeed an architectural marvel: quoting E.G. Squier, William Withrow, the editor of the *The Canadian Methodist Magazine*, wrote that one could not fail to experience a sensation of awe when encountering the mounds, such as one would feel in passing the portals of an Egyptian temple, or in gazing upon the ancient ruins of Petra in what is now Jordan.[22]

While many early observers agreed that the mounds were a remarkable engineering feat, nineteenth-century investigators differed on the origins and racial character of the individuals who built them. In particular, despite his belief that the mound builders seemed a unique indigenous society, Daniel Wilson's endorsement of the principle of environmental causation, and his corollary emphasis on episodic notions of progress, allowed for the possibility that there was nothing incompatible with the idea of the nineteenth-century Native being the 'degenerate' descendant of the mound builder. Thus, while Wilson noted that the 'extent of such works [mounds] indicates a settled condition of society, and industry far beyond that of the Iroquois Confederacy[,] ... there may be nothing absolutely incompatible with the idea of the Indians being degenerate descendants of such a people... .' [23] Just as the ancient peoples of Peru and Mexico had achieved a measure of civilization comparable with the marvels of Egypt or achievements of Europe, so too could the aboriginal inhabitants of North America have had a distinguished past.[24] Significantly, however, this was a minority position and most observers saw little evidence that this was in fact the case. Instead, within an intellectual environment that increasingly insisted upon the defining parameters of race, two positions that cast a more pejorative light upon the nineteenth-century aboriginal population were advocated: first, prior to the 1890s, it was most often assumed that the mound builders were superior and utterly distinct from nineteenth-century Natives; and second, after the establishment of consanguinity in the 1890s when it was acknowledged that the mound builders were indeed Indians, it became common to deny that they had ever had an advanced culture.[25]

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[19] Wilson, *Prehistoric Man*, I: 235, 292, 354.

[20] Wilson, *Prehistoric Man*, I: 267; and George Bryce, *The Mound Builders*, Manitoba Historical Society Transactions no. 18 (Winnipeg: The Historical and Scientific Society of Manitoba, 1885), 10.

[21] Wilson, *Prehistoric Man*, I: 273.

[22] W.H. Withrow, 'The Mound-Builders,' *The Canadian Methodist Magazine* 2 (October 1875): 359.

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[23] Wilson, *Prehistoric Man*, I: 319. For American scholars who subscribed to the minority view that Natives were the direct and degenerative ancestors of the mound builders, see Trigger, *A History of Archaeological Thought*, 105; and Bieder, *Science Encounters the Indian*, 33-34.

[24] Trigger, *A History of Archaeological Thought*, 120.

If Wilson seemed inclined to accept the possibility of consanguinity between the mound builders and nineteenth-century aboriginal peoples—although, as he admitted, such a proposition was yet 'unsupported by proof'[26]—the majority were not so optimistic in their assessment of the capacity of indigenous people to approximate the achievements of the ancient race. Those who maintained that the mound builders represented a past, but advanced, race distinct from contemporary aboriginal groups made their case on several fronts. In addition to their superior knowledge of metallurgy and engineering, the mound builders replicated the nineteenth-century Lockean ideal of a progressive, 'civilized' society by embracing a domesticated, agrarian lifestyle.[27] The presence of the mounds suggested a large population—certainly more numerous than the numbers of nineteenth-century Natives—who exhibited knowledge of domestic skills such as the making of copper implements and pottery. Access to such skills was crucial in proving the superiority of the mound builders: the most important domestic industry of the mound builders, Reverend Withrow argued, was the manufacture of copper implements and personal ornaments; further, the pottery of the mound builders even

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[25] Bruce Trigger, 'Archaeology and the Image of the American Indian,' *American Antiquity* 45, no. 4 (1980): 666.

[26] Wilson, *Prehistoric Man*, I: 319.

[27] Anthropologist Ter Ellingson, in *The Myth of the Noble Savage* (Berkeley: University of California Press, 2001), 229-30, argues that the idea that 'savage' people needed to be brought into a state of domestication was an essential tenet of racial evolutionists and became a more prominent theme after the mid-nineteenth century.

'exhibit[ed] graceful forms, elegant ornamentation and much skill in manufacture.'[28] The contrast with nineteenth-century aboriginal people was seemingly striking: '[o]ur native Indians,' Withrow noted, '... rarely make pottery, heating water instead in bark vessels, with red hot stones.'[29] Moreover, in addition to exhibiting an industrious and aesthetic spirit comparable to that of European societies, the mound builders were a peaceful race. The Manitoba mounds were thought to be ideally situated for defensive purposes and archaeological investigations revealed few weapons of destruction.[30] This profile contrasted dramatically with Native groups whose seemingly limited abilities did not permit such elaborate structures and whose essential natures often 'demonstrated' a proclivity toward violent ends. Charles Whittlesey, for example, argued that there 'is no proof that our Indians erected works of defense until after the French and Spaniards had taught them to do so, by building stockades in their midst.'[31] Although apparently

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[28] Withrow, 'The Mound-Builders,' 361; Bryce, *The Mound Builders*, 10-14, 16; Smyth, 'The Mound Builders of the West,' 78, 80, 89-90; and 'Pre-Historic Canada,' *Canadian Illustrated News* (20 January 1877): 39. A minority was less optimistic about the talents of the ancient race and argued that while the mound builders were familiar with the making of pottery, they had no knowledge of metallurgy. See Dr. Schultz, 'The Mound Builders of the West,' *The Canadian Naturalist and Quarterly Journal of Science* 9, no. 1 (1881): 60.

[29] Withrow, 'The Mound-Builders,' 361.

[30] A. McCharles, 'The Mound-Builders of Manitoba,' *American Journal of Archaeology* 3, no. 1 (1887), 71-72; Schultz, 'The Mound Builders of the West,' 60; and 'Pre-Historic Canada,' *Canadian Illustrated News*, 39.

[31] Charles Whittlesey, 'The Ancient Miners of Lake Superior,' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of*

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superior in many ways to the aboriginal races of North America, the peaceful mound builders had fallen prey to more warlike and violent societies. As George Bryce noted, the destruction of the mound builders by the hands of more primitive people was both ironic and tragic, since such violence destroyed the very arts and useful habits that might have improved the condition of Natives.[32]

The first generation of speculation on the mounds was divided not only on the issue of the origin of the mound builders and their possible consanguinity with contemporary aboriginal groups, but on the antiquity of the earth and, by extension, of humanity. Reacting to the excavation of Brixham Cave and other archaeological findings, advocates for the greater antiquity of the earth received a boost when Charles Lyell reversed three decades of opposition to early man, and announced before the annual meeting of the British Association for the Advancement of Science in 1859 his conversion in favour of an ancient humanity.[33] Lyell's struggles were not unique. Although Daniel Wilson noted that recent archaeological evidence had renewed the debate over the antiquity of humanity in both the Old and New Worlds, he was reluctant to agree with claims for the extreme antiquity of the mound builders made by some.[34]

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[31](...continued)
the Canadian Institute [*Annals of Science*, Cleveland] 1, no. 4 (1852): 108.

[32] Bryce, *The Mound Builders*, 19; and Withrow, 'The Mound-Builders,' 362.

[33] Van Riper, *Men Among the Mammoths*, chapter 4, especially 113-16.

[34] Wilson, *Prehistoric Man*, I: 63, 100.

Within the remains of the great Ohio mounds, Wilson noted, bone implements and animal remains seemed to be of existing species, thus suggesting the more recent antiquity of the race and, by extension, its potential identification with contemporary Native tribes.[35] Wilson roughly agreed with the estimates that placed the mound builder era eight centuries previous, or with the arguments of fellow Enlightenment evolutionists Squier and Davis who maintained that the mound builders had existed four to six centuries before contemporary times.[36] In contrast, those who considered the mound builders to be a separate race, distinct from Natives, necessarily gave them a more ancient lineage: W. J. Smyth—who saw the mound builders as a people 'whose origin and fate are surrounded with impenetrable darkness'[37]—cited evidence that the mound builders had lived among the mastodon, probably about 2,000 years ago, while Dr. Schultz, W. H. Withrow, and others were content with vague descriptions of the mound builder as 'prehistoric' or 'ancient.'[38] Most extreme, Charles Hill-Tout argued for a great span of time and concluded that the Great Fraser Midden (later called the Marpole Midden)—now at the south end of Granville Street in Vancouver—dated back many centuries and, more likely, several millennia.[39]

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[35] Wilson, *Prehistoric Man*, I: 100, 321-22.

[36] Wilson, *Prehistoric Man*, I: 322.

[37] Smyth, 'The Mound-Builders,' 77.

[38] Smyth, 'The Mound-Builders,' 88-91; Schultz, 'The Mound Builders of the West,' 60; and Withrow, 'The Mound Builders,' 359.

It is clear that nineteenth-century Canadian commentators were divided on two distinct issues regarding the mound builders: whether contemporary 'Indians' were in fact its degenerate offspring and the question of the antiquity of this previous civilized society. Of the two positions advanced, neither ultimately did anything to enhance the status of Native peoples in the nineteenth century. Enlightenment evolutionists such as Daniel Wilson and, in the United States, E.G. Squier, tended to place the mound builders closer in chronology to the nineteenth century, and were more likely to entertain the possibility that the contemporary 'Indian' was the degenerate offspring of the majestic race. Such an argument was consistent with an episodic view of progress in which cultures—including previous Native groups—were capable of great achievements before decaying. While Natives may have achieved a great, past civilization, it was thought that their societies had decayed by the nineteenth century and were now faced with the inevitable onslaught of a more progressive people. In contrast, those who placed the mound builder race coterminous with the mastodon and other extinct creatures rejected linkages with contemporary aboriginals and thus were able to lengthen the distance between the ancient majestic race and the 'downtrodden' nineteenth-century Native. That the mound builder race occupied the more ancient past, necessarily pushed the North American Native toward the more recent. As a result, the contention that nineteenth-century Natives entered the modern world 'antithetically,' or as 'a people without history' did much to dissipate colonial Canadian guilt over the replacement of one people by another.[40] Anglo-Canadian interpretations of Native oral tradition seemed to confirm this view: George Bryce's Native guide relayed that 'his fathers have told him that the builders of the mounds were of a different race from [them] [and] that the mounds are memorials of a vanished people—the "Ke-te-anish-i-na-be" or "very ancient men."'[41] On other occasions, aboriginal oral culture even seemed to point to a separate, civilized race that perhaps looked much like the dominant nineteenth-century culture: while 'the Indians invariably disclaimed all direct knowledge of the people who manufactured the pottery and other articles, or erected the great mounds of earth,' the *Canadian Illustrated News* proclaimed, '... some of the tribes had a tradition among them that many hundreds of years before, the country was peopled with strange light-faced persons... .'[42] Likewise, Charles Hill-Tout noted that while 'Indian' traditions generally did not provide very reliable evidence, in this case their dissociation from the mounds seemed to confirm archaeological evidence.[43] A reviewer of the first edition of *Prehistoric Man* went so far as to claim that one of the principal merits of Wilson's work was that it, in fact, gave voice to those who were incapable of doing so themselves: 'they [the Natives] are rather the *un*-historic, the speechless people,' the reviewer noted, '...speechless so far as their own posterity is concerned, on whom his [Wilson's] inquiries are directed.'[44] W.H. Smith's comments were revealing: the nineteenth-century 'Indian' had no capacity to tell his own history and therefore relied upon the benevolence and achievements of others in order to be represented. Finally, if the ancestors of North American Natives had, as was often suggested, conquered and pushed out the intellectually superior mound builder race, this process merely confirmed the rise and fall of civilizations that now saw the supplanting of an indigenous race by a European one.[45] Indeed, as alluded to previously, George Bryce found an ironic justice in the fact that Euro-Americans had arrived upon the scene to succeed the farmer, the metal worker, and the potter, and 'to be the avenger of the lost race' who had been driven out by 'the savage red man.'[46]

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[39] Charles Hill-Tout, 'Later Prehistoric Man in British Columbia,' *Transactions of the Royal Society of Canada* 1 (1895): 106.

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[40] Fabian, 'Culture, Time, and the Object of Anthropology,' in *Time and the Work of Anthropology*, 195. Of course, the nomenclature of 'a people without history' (and a indictment of writing history and anthropology in such a fashion) has been popularised by Eric Wolf, *Europe and the People Without History* (Berkeley: University of California Press, 1982).

[41] Bryce, *Mound Builders*, 1; and Schultz, 'The Mound Builders of the West,' 61.

[42] 'Pre-Historic Canada,' *Canadian Illustrated News*, 39.

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[43] Charles Hill-Tout, 'Notes of the Prehistoric Races of British Columbia and Their Monuments,' *British Columbia Mining Record, Supplement* (Christmas 1899), 13-14.

[44] [W.H. Smith], 'Wilson's *Prehistoric Man*,' *Blackwood's Edinburgh Magazine* 93 (May 1863): 525. Emphasis in the original.

[45] Withrow, 'The Mound-Builders,' 362; and Bryce, *Mound Builders*, 17.

[46] Bryce, *Mound Builders*, 17. Bryce seemed unwilling to accept that the mound (continued...)

When it was finally recognized that there had been 'for a long time a disposition to impose upon us a fictitiously specialized race known as the Mound Builders,' David Boyle rejected the degenerationist argument by noting that the builders of the mounds merely reflected 'as much tribal divergence as one may find among any savage people anywhere else, and the Mound Builders were only Indians with a predilection for the construction of earth-heaps.'[47] In a letter to George A. West, vice-president of the Wisconsin Archaeological Society, Boyle argued that 'I think I am safe in saying that the consensus of opinion is strongly in favor of the contention that the mounds were built by just plain Indians. I do not mean Indians of the plain but just common Indians.' Boyle continued that 'we have not yet found anything in these mounds indicating ... [a higher] condition of development than we find among the indians [sic] themselves... .'[48]

While the significance of the mound builder controversy has engendered various scholarly interpretations, there has been little work placing it within the intellectual

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[46](...continued)
builders were in fact intimately related to contemporary Natives. In the 'new and revised edition' of his *A Short History of the Canadian People* (Toronto: William Briggs, 1914), Bryce's argument that the mound builders 'seem extinct' or perhaps were related to the Toltecs was identical to his statements in the first edition published in 1887.

[47] David Boyle, *Notes on Primitive Man in Ontario* (Toronto: Warwick Bro's & Rutter, 1895), 92.

[48] David Boyle to George A. West, 15 December 1906. DBP.

debates surrounding the emergence of the discipline of prehistory.[49] As one of the principal archaeological debates in North America in the nineteenth century, the mound builder controversy acted as a discursive site upon which various contradictory positions could be advanced. Those committed to an episodic view of progress were more likely to assign consanguinity between the 'ancient race' and the contemporary aboriginal groups, and to accept that nineteenth-century indigenous groups had once had a more majestic past. Such a view was, of course, consistent with a belief that aboriginal peoples were, in theory, equal in potential to Euro-Americans and had even previously attained a high measure of 'civilization.' In contrast, those who advocated a racial view of North American prehistory either rejected the common origins of the two groups or, particularly after the American scholar Cyrus Thomas established consanguinity in the 1890s, denied that any advanced civilization had existed. This was a lasting and predominant view. Even as late as the 1930s, J. Mackintosh Bell, Robert Bell's nephew and a geologist for the Geological Survey of Canada, proclaimed, '[i]f any of the roving Indian tribes in what is now Canada had any conspicuous advance in civilization, such as had the Aztecs and Mayas, farther south, all record of it has vanished.'[50] The rejection of the degenerationist argument was a symptom of hardening racial attitudes and an unwavering commitment toward sociocultural evolution. Perhaps most telling was John Lubbock's advancement of this position: he vigorously resisted any notion that North American aboriginal people had attained a great prior civilization.[51] This verdict on Native potentiality was harsh: as David Boyle made clear, the mound builders had simply confirmed their savage instincts by preferring to play in the dirt.

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[49] For example, Gwen Remple sees interpretations of the Manitoba mounds as a desire to establish greater western autonomy and to write a 'western' version of Manitoba history. See Remple, 'The Manitoba Mound Builders,' 12-18.

[50] J. Mackintosh Bell, 'The Physical Features of Canada and Their Influence on Human Development [1931?].' J. Mackintosh Bell Fonds, National Archives of Canada. Box 1, file 10.

The Darwinian 'Revolution' and the Emergence of Racial Evolution

In 1912 R.R. Marett, the Oxford anthropologist who trained both Diamond Jenness and Marius Barbeau, proclaimed that '[a]nthropology is a child of Darwin; Darwinism makes it possible. Reject the Darwinian point of view, and you must reject anthropology also.'[52] Marett was not quite so dogmatic as he sounded, admitting that Darwinism was a 'working hypothesis' from which anthropologists began their investigations; nevertheless, it was only through this developmental model that one

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[51] Trigger, *A History of Archaeological Thought*, 114-118. For Boyle's advocacy of Lubbock's position, see [David Boyle], 'Mounds,' *Annual Archæological Report, 1896-97* (Toronto: Warwick Bro's & Rutter, 1897): 17.

[52] R.R. Marett, *Anthropology* (London: H. Holt, 1912), 8; cited in David R. Oldroyd, *Darwinian Impacts: An Introduction to the Darwinian Revolution* (Atlantic Highlands, NJ: Humanities Press, 1980), 298.

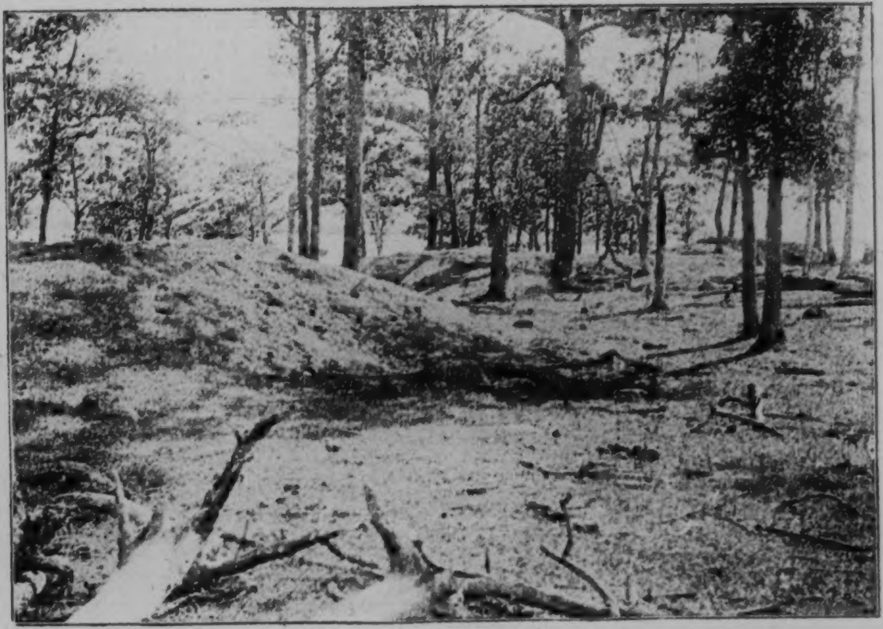

Fig. 1.—Otonabee Serpent Mound. Egg Mound to left. Serpent's Tail to extreme right.
Photo. by Dr. W. T. Harrison, Keene.

Figure 4.1: The Otonabee Serpent Mound.

Source: David Boyle, 'Mounds,' *Annual Archæological Report, 1896-1897*, 15.

could study 'the whole history of mankind, and against the background of the history of living things in general.'[53] Such an approach contained a very personal aspect for the Oxford anthropologist: as E.B. Tylor's student, successor and biographer, Marett revealed his intellectual kinship when he argued that there is not 'one kind of history for savages and another kind for ourselves, but the same kind of history, with the same evolutionary principle running right through it, for all men, civilized and savage, present and past.'[54]

As the example of Marett suggests, the virtual coterminous popularization of both the prehistoric movement and Darwinian thought has led some scholars to see the so-called Darwinian revolution as integral to early anthropological practice and theory.[55] While this revolution has been seen as sounding the death knell of earlier nineteenth-century polygenist thought, it has also been seen as being responsible for a hardening of late-Victorian attitudes toward 'inferior' peoples, largely under the guise of 'Darwinian' nomenclature such as 'the survival of the fittest' and 'natural selection.' This 'received' view has, however, come under severe attack. J.W. Burrow, in his influential *Evolution*

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[53] R.R. Marett, *Anthropology* (London: H. Holt, 1912), 8, 10.

[54] Marett, *Anthropology*, 12. Marett lauded Tylor's *Primitive Culture* as the greatest of the anthropological classics (p. 251). For a brief introduction to Marett, see George W. Stocking Jr., *After Tylor: British Social Anthropology 1888-1951* (Madison: The University of Wisconsin Press, 1995), 163-72.

[55] See, for example, Oldroyd, *Darwinian Impacts*, chapter 21; Adam Kuper, *The Invention of Primitive Society: Transformations of an Illusion* (London: Routledge, 1988), chapter 1; and Maurice Mandelbaum, *History, Man, and Reason: A Study in Nineteenth-Century Thought* (Baltimore: The Johns Hopkins Press, 1971), chapter 6.

and Society (1966), argues that there has been a distinct 'over-use of Darwin in accounting for the rapid development of anthropology' in the nineteenth century.[56] Instead, Burrow argues that the evolutionary anthropology of E.B. Tylor and John Lubbock developed independently of Darwinian theory, in spite of the fact that Lubbock had been 'nutured in the cradle of evolution.'[57] More recently, Peter Bowler has repeatedly presented a mass of evidence that suggests that the idea of a true Darwinian revolution in the generation or so following the publication of *On the Origin of Species* is largely myth.[58] Indeed, as Bowler suggests, it seems more accurate to label turn of the century evolutionary models as non-Darwinian.

An examination of anthropological thought in Canada likewise reveals that the Victorian synthesis did not emerge out of a sudden revolution precipitated by the publication of *On the Origin of the Species* in 1859. Aspects of the ambiguous relationship of Darwinism to early Canadian anthropology can be observed in the work of Daniel Wilson and others.[59] Both Wilson and J.W. Dawson were highly critical of Darwinian theory when it first appeared and this critique helps to account for the hostile reception that it received in the relatively small academic community in Canada. As A.B. McKillop notes, Darwin's work challenged 'the supremacy of Baconian induction' to which Wilson and J.W. Dawson were both committed. Accordingly, the theory of transmutation necessarily was to be rejected because the fossil record did not provide positive evidence for its existence.[60] However, their opposition also differed significantly over time.[61] While Dawson remained a fervent anti-Darwinist until his final breath, Wilson found much to admire in Darwin and was able to incorporate aspects of development theory into his own work. It has often been argued that *Caliban: The Missing Link*—a study of mythical creatures in Shakespeare's plays—represented Wilson's rejection of the common origins of animals and humanity in the only format intellectually available to him: the literary imagination.[62] However, Wilson's scientific writings did not universally condemn or ignore Darwinian evolution, particularly in the latter years of his career. Both A.B. McKillop and Bruce Trigger note that Wilson thought that Darwin was a competent naturalist and suggested that his theories provided the key to a thousand difficulties.[63] As Wilson confided to his diary, he was '[d]eeply interested in Darwin's Life [sic]; a man of rare worth, a fine genuine simplicity of character, [and] most faithful to truth in all his researches... .'[64] By 1890 his critique of evolution had been further conditioned, and he was able to tell a Philadelphia audience that 'the great naturalist, Charles Darwin, ... has revolutionized biological science with the demonstration of that process of evolution which has guided all the manifestations of life from the lowest to higher forms.'[65] While Wilson withheld consent that there had been an 'evolution' of the mind and soul, he was now more prepared to accept evolutionary theory in explaining the development of the mystery of life. In addition, although he ultimately denied the explicit biological connection between humans and animals, he believed that Darwinian evolution served a useful purpose in signalling the triumph of monogenesis over the theories of Morton and Agassiz.[66] In recognizing the influence of Darwin in combatting the theory of multiple origins, Wilson needed to look no further than a pirated pamphlet entitled *Anthropology*

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[56] Burrow, *Evolution and Society*, 19.

[57] Burrow, *Evolution and Society*, chapter 7, quotation from page 229.

[58] Bowler, *The Non-Darwinian Revolution*, 133-41.

[59] On the impact of Darwinism in Canada, see Suzanne Zeller, 'Environment, Culture and the Reception of Darwin in Canada, 1859-1909,' in *Disseminating Darwinism: The Role of Place, Race, Religion, and Gender*, ed. Ronald L. Numbers and John Stenhouse (Cambridge: Cambridge University Press, 1999), 91-122.

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[60] McKillop, *A Disciplined Intelligence*, 107.

[61] McKillop, *A Disciplined Intelligence*, 108-9.

[62] McCardle, 'Life and Anthropological Work of Daniel Wilson,' 41-42; Berger, *Science, God, and Nature in Victorian Canada*, 67; A.B. McKillop, *Contours of Canadian Thought* (Toronto: University of Toronto Press, 1987), 54-58; idem, *A Disciplined Intelligence*, 129-32; and idem, *Matters of Mind: The University in Ontario, 1791-1951* (Toronto: University of Toronto Press, 1994), 118-19.

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[63] Trigger, 'Sir Daniel Wilson,' 19; and McKillop, *A Disciplined Intelligence*, 108-9.

[64] Wilson, 'Daniel Wilson Journal [typescript],' 13 January 1888 and 28 March 1887. John Langton Family Papers, University of Toronto Archives.

[65] Daniel Wilson, 'The Book of Nature,' *The Canadian Educational Monthly and School Magazine* 12 (1890): 43.

[66] As George Stocking notes, the 'victory' of the monogenist argument was not as complete as previously thought. See Stocking, 'The Persistence of Polygenist Thought in Post-Darwinian Anthropology,' in *Race, Culture, and Evolution: Essays in the History of Anthropology* (New York: The Free Press, 1968), 42-68.

and Archaeology. Wilson and Edward B. Tylor had each contributed articles on archaeology and anthropology, respectively, to the ninth edition of the *Encyclopædia Britannica* (1875-1889). While these articles had obviously appeared separately, following publication they were pirated and published together with the authorship erroneously reversed.[67] In *Anthropology and Archaeology*, Tylor acknowledged that the environmental explanations put forth by individuals such as the French anthropologist Armand de Quatrefages—who attributed the great variety among human races to changes in climate—only went part way in articulating a scientific defence for a single human stock. Drawing upon Darwin's *Descent of Man*, Tylor argued for two 'modern views' that confirmed the 'doctrine of a single human stock': first, the recognition of a vast antiquity that 'made it more easy to assume the continuance of very slow natural variation as having differenced even the white man and the Negro among the descendants of a common progenitor'; and second, quoting directly from *Descent*, Tylor recorded that '[a]lthough the existing races of man differ in many respects ... [m]any of these points are of so unimportant, or of so singular a nature, that it is extremely improbable that they should have been independently acquired by aboriginally distinct species of races.' In a conclusion that Wilson would have obviously endorsed, Tylor noted that the doctrine of common origins now stood on a firmer basis due to 'Mr. Darwin's prophecy' and predicted that the dispute between 'the monogenists and the polygenists will die a silent and unobserved death.'[68]

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[67] Tylor had in fact written the entry entitled 'Anthropology' and Wilson the one entitled 'Archaeology.'

While Wilson's anthropological theory was sometimes ambiguous with regard to Darwin and Tylor, his criticism of the latter's advocation of the great antiquity of humanity illustrated one of the foundational preconditions of the classical evolution paradigm. In April 1888 Wilson was confronted by one of his fourth-year students who wished him to explain his published assertion that the antiquity of humanity was between twenty and one hundred thousand years at a minimum.[69] The comment was obviously Tylor's. Wilson was quick to dissociate himself from a belief in ancient humanity and privately lamented that he would 'not be surprised to find the "Dominion Churchman" or the "Christian Guardian" down on me for some of Tylor's free talk.' This incident further caused Wilson to muse about the need for some type of international copyright legislation, as well as to reflect on the freedom that one had to 'venture on sayings in the orthodox precincts of Oxford that dare not be whispered in the State University of Ontario.'[70]

While Wilson was quick to dissociate himself from Tylor, the emerging Victorian synthesis was not. In *Notes on Primitive Man in Ontario* (1895), David Boyle began with a lengthy quote from Tylor's *Primitive Culture*: 'archaeology ... [leads] the student's mind back to the remotest known conditions of human life ... [to] a very type of primitive culture, simple yet crafty, clumsy yet purposeful, low in artistic level yet fairly started on the ascent toward highest development... .'[71] As the mound builder controversy, or L.H. Morgan's attack on the supposed 'greatness' of Aztec culture, illustrates, racial evolutionists typically rejected the notion that indigenous cultures had achieved any stage that might be labeled 'civilization.'[72] Nor were all aboriginal groups equally able to march up the ladder of civilization. The notion of psychic unity—which argued that all humans shared the same essential features—was increasingly strained in the late nineteenth century. The publication of Lubbock's *The Origin of Civilisation* in 1870, for example, maintained an uneasy defense of this doctrine.[73] Lubbock's advocacy of a lack of moral or religious universality, however, drew sharp criticism from the more conservative elements of society: Reverend James Carmichael, dean of Montreal, challenged Lubbock's 'misguided information' and argued that he had misinterpreted many of the sources from which *Pre-historic Times* drew and 'that there is not a well-authenticated case of a single tribe on the face of the earth wholly destitute of the religious idea.'[74] Indeed, in his review of the second edition of *Pre-historic Times* (1869), even the more favourable critique of Tylor maintained that he was 'disposed to entertain a view different from [Lubbock's] on the existence of savage tribes destitute of religion.'[75] As Lubbock's equivocation suggests,[76] human groups increasingly came to be seen as different both biologically and culturally; indeed, it was these biological differences that would ultimately influence the ability of human groups to utilize culture such as the incorporation of technology or to acquire the trappings of western civilization. Contemporary Europe and Anglo-Saxon North America were thus seen as the apex of both biological and cultural evolution; their 'superior' intellect manifested itself in more advanced morality, technology and culture. While racial evolution provided an optimistic explanation for the perceived 'superiority' of the dominant culture in the second half of the nineteenth century, it also provided a more pessimistic interpretation of Native cultures: unable to adapt or evolve, they were doomed to extinction or, at best, perpetual servitude.[77]

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[68] Wilson and Tylor, *Anthropology and Archaeology*, 15-17.

[69] Wilson, 'Daniel Wilson Journal [typescript],' 29 April 1888. John Langton Family Papers, University of Toronto Archives. The published assertion was found in the mis-labelled Daniel Wilson and E.B. Tylor, *Anthropology and Archaeology* (New York: The Humboldt Publishing Company, 1885).

[70] Wilson, 'Daniel Wilson Journal [typescript],' 29 April 1888. John Langton Family Papers, University of Toronto Archives.

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[71] Boyle, *Notes on Primitive Man in Ontario*, 1.

[72] On Morgan's attack on Aztec 'civilization' see Morgan, 'Montezuma's Dinner,' 265-308; and Trigger, *A History of Archaeological Thought*, 120-21.

[73] There is some debate on Lubbock's commitment to the psychic unity of humanity. Bruce Trigger argues that Lubbock had rejected this notion by the 1860s, while Peter Rivière defends Lubbock's commitment to it. Clearly, however, Lubbock was inconsistent in his application of this principle: in *The Origin of Civilisation and the Primitive Condition of Man* (Chicago: University of Chicago Press, 1978 [1870]), Lubbock argues that since '[w]e do not generally attribute moral feelings to quadrupeds and birds,' (263) there was little reason to attribute morals or an 'idea of right' to the 'lower races of men' (269). Acknowledging that this position was controversial, Lubbock noted that 'I am aware that the contrary opinion has been expressed by many eminent authorities'(261). For opposing views on Lubbock's commitment to psychic unity see Trigger, *Sociocultural Evolution*, 88; and Peter Rivière, 'Editor's Introduction,' in *The Origin of Civilisation and the Primitive Condition of Man*, by John Lubbock (Chicago: University of Chicago Press, 1978 [1870]), xlii-li and lvii-lviii.

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[74] Rev. James Carmichael, 'Sir John Lubbock and the Religion of Savages,' *Popular Science Monthly* 48 (December 1895): 220-28; quotation is from page 228. As Peter Rivière notes, Lubbock ignored Carmichael's criticisms in *Marriage, Totemism and Religion: An Answer to Critics* (1911); see Rivière, 'Editor's Introduction,' xlvi.

[75] E.B. Tylor, 'Prehistoric Times [review of *Pre-historic Times*, by John Lubbock],' *Nature* 1 (25 November 1869): 104. Qualifying his criticism somewhat, Tylor noted that Lubbock utilized a stricter definition of religion than he did.

[76] See note 73 above.

The emergence of racial evolutionism in the last third of the nineteenth century did not draw extensively from Darwinian theory. As the mound builder controversy suggests, debates on human antiquity also drew upon archaeological evidence in Canada and elsewhere, and the Darwinian contribution to this discussion was merely one aspect of a larger and more lengthy process. In addition, the linear ladder of racial evolution was explicitly non-Darwinian.[78] As Peter Bowler, in particular, often notes, the construction of an oversimplified linear model of progression was in direct conflict with the Darwinian metaphor of a branching tree or bush.[79] Indeed, Bowler argues that the Darwinian metaphor of a branching bush with no central trunk leading teleologically toward late nineteenth-century Victorian society undermined the very concept of successive stages of cultural growth; the rise of cultural evolutionism therefore necessarily emerged separately from an explicitly Darwinian model of biological evolutionism. The dichotomy between culture and biology was not always apparent to late Victorian eyes, however, and the two were sometimes conflated into a single determinate of human evolution. Of course, not all racial evolutionists preached the same (or even a consistent) message, and, in varying degrees, some allowance was made for environmental or economic factors in stimulating the progress of humanity. However, even E.B. Tylor—who exhibited a less virulent racial typology than some of his colleagues—eventually argued that

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[77] Trigger, *Sociocultural Evolution*, 65.

[78] For a discussion of Darwin's rejection of a linear ladder and adoption of what he called the 'principle of divergence,' see Ruse, *Monad to Man*, 145-50.

[79] See, in particular, the arguments presented in Bowler, *The Invention of Progress*; idem, *Theories of Human Evolution: a Century of Debate, 1844-1944* (Baltimore: The Johns Hopkins University Press, 1986); and idem, 'Victorian Evolutionism and the Interpretation of Marginalized Peoples.'

> [t]here seems to be in mankind inbred temperament and inbred capacity of mind. History points the great lesson that some races have marched on in civilization while others have stood still or fallen back, and we should partly look for an explanation of this in the differences of intellectual and moral powers between such tribes as the native Americans and Africans, and the Old World nations who overmatch and subdue them.[80]

As the example of David Boyle illustrates, anthropological theory in late Victorian Canada was not immune to such thinking.

David Boyle and the Victorian Synthesis

Although not trained formally as an anthropologist, David Boyle was Ontario's most prominent prehistorian in the late nineteenth and early twentieth centuries. Born in 1842 in Greenock on the Clyde River, Boyle grew up in a working-class family dedicated to self-improvement and attendance at the local Mechanics' Institution.[81] Upon immigrating to Canada from Scotland in 1856, Boyle worked as a blacksmith in Elora, Ontario while attending grammar school; in 1864 he graduated and took a teaching position a few miles west in Middlebrook. Gerald Killan, Boyle's biographer, argues that the 1870s were crucial to Boyle's intellectual development: he helped establish the Elora Mechanics' Institute library, the Elora School Museum and the Elora Natural History Society during these ambitious years and immersed himself in Darwinian biology, geology, and prehistory.[82] In 1884, Boyle became the voluntary curator of the archaeological collection of the Canadian Institute; four years later the provincial government agreed to subsidize the collection and Boyle became Canada's first career archaeologist. Boyle's most significant contributions to the study of prehistory came thereafter: from 1887 to 1911 he edited the *Annual Archæological Report*, a publication that was often reviewed favourably and republished in American archaeological journals.[83]

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[80] E.B. Tylor, *Anthropology: an Introduction to the Study of Man and Civilization* (London: Macmillan, 1881), 74; cited in Bowler, 'Victorian Evolutionism and the Interpretation of Marginalized Peoples,' 727.

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[81] For biographic details on Boyle, see Killan, *David Boyle*; Gerald Killan, 'Boyle, David,' *Dictionary of Canadian Biography* (Toronto: University of Toronto Press, 1998), vol. 14: 130-34; Alexander F. Chamberlain, 'David Boyle,' *American Anthropologist* 13, no. 1 (1911): 159-65; and [R.B. Orr], 'Dr. David Boyle,' *Annual Archæological Report, 1911 Including 1908-9-10* (Toronto: L.K. Cameron, 1911), 6-8.

[82] R.B. Orr, who assumed editorship of the *Annual Archæological Report* from Boyle, affirms Killan's conclusion arguing that it 'was in these days [the 1870s], when his [Boyle's] keen scientific eye was upon the progress of modern science in the old world, that his attention was attracted by the researches of the vast mines of ancient Chaldea. The epoch-making discoveries of Botha and Layard in the royal palaces of Khorsabad and Nimrud had created an extraordinary enthusiasm throughout Europe, and left its impress on the mind of the embryo archaeologist in his beloved library at Elora....' See [R.B. Orr], 'Dr. David Boyle,' *Annual Archæological Report, 1911*, 7.

Boyle's commitment to the extreme antiquity of humanity and the conflation of notions of biology and culture are clearly evident in his prehistoric explorations. An earlier generation of prehistorians had sometimes struggled with ideas of human antiquity and biocultural evolution: even John Lubbock had not developed a distinct evolutionist position until the publication of *Origin of Civilisation* in 1870.[84] David Boyle had no such dilemma to overcome. By the 1890s the challenge to a literal biblical chronology was increasingly commonplace and, as Boyle optimistically told a Hamilton audience, 'now that biological science is studied [as] ... the basis of evolution by everybody, ... the popular mind is in a condition of receptivity rather than antagonism.'[85] The 'so-called civilized condition,' Boyle argued, was but a brief moment in time when 'compared with the endurance of [humanity's] ... primeval state.'[86] Within this indeterminate span of time, Boyle sought to reconstruct human development from savagery to civilization; while Darwinian elements of natural selection were not explicitly advocated, Boyle and the classical evolutionists nevertheless proposed a model in which race played a structural role that had far-reaching implications.[87] Boyle noted before a Hamilton audience in 1899 that since 'the earliest times until our own day it has been impossible to adduce anything like philosophical reasons to account, not only for individual, but for racial peculiarities.'[88] Instead, invoking E.B. Tylor's 'doctrine of survivals,' Boyle accounted for individual and societal characteristics on the basis of racial evolution. Drawing upon the Lamarckian doctrine of the inheritance of acquired characteristics, Boyle argued that contemporary examples of the 'savage impulse' among 'civilized' individuals could be accounted for by recognizing that 'untold repetitions of such acts through many hundreds of generations have transmitted [such] a tendency ...—a tendency which remains long after man has arrived at a stage of advancement when it was no longer necessary... .'[89] The internal residue represented by the notion of survivals spoke of the inability of 'savage' cultures to shake off aspects of their primitive past. As Boyle noted, the '[Indian] is a nineteenth century survival of the cave-man,' and he pessimistically wondered if 'all traces of customs and usages engendered and maintained during ages in a primitive state of society can be eradicated in the course of a few centuries [even] in more advanced circumstances.'[90] Further, many of the vices that Boyle saw in the late nineteenth century such as hunting, the slaughter of the buffalo, gambling, popular superstitions, drunkenness and working-class pursuits such as cock-fights, dog-fights and 'man-fights' could be accounted for 'as a consequence of racial experiences.'[91] The notion of survivals thus served a useful contemporary purpose: it aided in the identification of the primitive habits of prehistoric practices within contemporary 'civilized' society and provided a scientific justification for their eradication.[92] Instead, the limits of acceptable behaviour and practise were to draw from the values of middle-class Victorian society and the obvious example of self-made men like David Boyle.

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[83] Jane H. Kelley and Ronald F. Williamson, 'The Positioning of Archaeology Within Anthropology: A Canadian Historical Perspective,' *American Antiquity* 61, no. 1 (1996): 6.

[84] Stocking, *Victorian Anthropology*, 155-56. As Stocking notes, Lubbock's *Prehistoric Times* (1865) began at the present and working its way backwards in time; in contrast, *Origin of Civilisation* (1870) began with the distant past and worked toward the present. This signalled an important methodological change within Lubbock, for, as Stocking states, the 'diffusionist traces back, not up,' while the evolutionist '"traced up" from the past to the present.'

[85] David Boyle, 'Some Mental and Social Inheritances,' *Journal and Proceedings of the Hamilton Association* 15 (1899): 35. This paper was read before the Association on 13 April 1899.

[86] Boyle, 'Mental and Social Inheritances,' 45; and idem, *Primitive Man*, 8.

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[87] Stocking, *Victorian Anthropology*, 185.

[88] Boyle, 'Mental and Social Inheritances,' 36.

[89] Boyle, 'Mental and Social Inheritances,'36. For a discussion of Tylor's doctrine of survivals see Stocking, *Victorian Anthropology*, 162-63; Harris, *Rise of Anthropological Theory*, 164-68; and Hugh J. Dawson, 'E.B. Tylor's Theory of Survivals and Veblen's Social Criticism,' *Journal of the History of Ideas* 54, no. 3 (1993): 489-504.

Boyle's explorations into the nature of 'primitive man' were primarily concerned with nineteenth-century Ontario aboriginals. Lacking sufficient prehistoric evidence to illustrate adequately the progression from 'savagery to civilization,' the contemporary

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[90] Boyle, 'Mental and Social Inheritances,' 44-45.

[91] Boyle, 'Mental and Social Inheritances,' 35-45, *passim*; quote from page 45.

[92] For economist Thorstein Veblen's use of Tylor's doctrine of survivals as a weapon of contemporary social criticism see Dawson, 'E.B. Tylor's Theory of Survival and Veblen's Social Criticism.'

'Indian' assumed a new and wholly unflattering role within an evolutionary context.[93] Employing a biological model of development, Boyle noted before a public audience that even 'Indians' assigned themselves to the lowest stage of development since 'not a few primitive people ascribe their ancestry to lower animals.'[94] His implication was clear: like animals, contemporary 'Indians' innately lacked the requisite powers of reason in order to advance up the ladder of 'civilization.' This deficiency was clearly illustrated by their simplistic beliefs in their own origins, primitive concepts of marriage that sometimes included polygamy, 'savage' and infantile customs such as the wearing of masks, and the lack of a universal belief in the eternal world.[95] Most telling in Boyle's materialistic and linear view of human development was the fact that although Indians had virtually 'invented' the wheel in the course of recreational pursuits, 'it had never occurred to them to apply it for transportation or vehicular purposes.'[96]

In contrast to Enlightenment evolutionists, classical evolutionists no longer saw degeneration—as evidenced by their interpretations of the mound builder race—as a primary means of explaining the current state of the 'Indian.' Instead, Natives were incorporated into the mainstream of civilization as an earlier form of humanity that remained static or progressed little, while 'white savages' were, as George Stocking notes, 'busily acquiring superior brains in the course of cultural progress... .'[97] It was in this context that Boyle could argue that

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[93] Boyle acknowledged the insufficiency of the archaeological and historical record regarding 'primitive' peoples: '[it] is deeply to be regretted that the observations of earliest writers seldom penetrated beneath the surface—the modern scientific spirit had yet two or three centuries to await its birth—and now we are reduced to the necessity of wondering and surmising, instead of being able to build on certainties... .' See Boyle, *Notes on Primitive Man in Ontario*, 3.

[94] Boyle, 'Six Lectures [Lecture II: 5].' DBP.

[95] Boyle, 'Six Lectures [Lecture I: 12].' Also see Lecture II: 2, 11, 13; Lecture III: 2-3, 10, 16; Lecture IV: 9-11; and Lecture VI: 3, 16. DBP.

[96] Boyle, 'Six Lectures [Lecture VI: 2-3].' DBP.

> [i]n these [primitive methods of handling raw materials and tools] we observe the dawn of ideas which, after the lapse of many centuries, have, by degrees almost imperceptible, developed through the minds of superior families of the human race, into these almost automatic devices that are the crowning mechanical glory of the nineteenth century. The distance is great from the pebble in the hands of the savage, whether, used to crack a bone or bring down a bird, to the steam engine of fty-thousand [sic] horsepower, and to the gun that can propel hundreds of pounds of metal eight or ten miles, but all the steps may be traced between the simple and the highly complex forms.

Likewise, on another occasion, Boyle asked rhetorically, 'Now, what is a savage?' Imbued with a linear progressionism in which not all groups could advance, Boyle was able to answer that '[h]e is the raw material out of which civilized man is made, but it is impossible to make all such raw material into the finished article.'[98] A hierarchical view of culture had been established in which the 'fossilized' Indian functioned only as a representative form of a much earlier version of prehistoric humanity or, at best, of lower-class Victorian society.[99] Clearly, an Enlightenment ideal in which all groups possessed the potential to advance toward 'civilization' had been repudiated.[100]

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[97] This paragraph draws from Stocking, *Victorian Anthropology*, 185.

[98] David Boyle, 'Aphorisms [n.d.].' DBP.

[99] For example, Boyle argued that the mind of 'primitive man' was totally different from that of the 'civilized,' and he drew explicit comparisons between

(continued...)

Boyle protested against the idea that a greater measure of time was all that was required for the nineteenth-century Indian to proceed upward in the hierarchy of races. In a particularly virulent illustration of racial typology, Boyle argued that 'statements of this kind [that Natives only required time to become 'civilized'] should be made cautiously, for ... many races have become extinct after an existence of thousands of years, having gone out of existence ... so low in the scale of humanity that it is impossible to imagine how they could ever [be] in a still lower state, or stage.'[101] It was

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[99](...continued)
contemporary Natives and lower-class workers such as sailors, fishermen and miners. Presumably, the latter had an equally slim chance of contributing to the advancement of contemporary society. Boyle, 'Six Lectures [Lecture I:15].' DBP; and idem, 'Notes,' *Archæological Report, 1900* (Toronto: Warwick Bro's & Rutter, 1901), 14. Likewise, R.G. Haliburton, in his essay on 'dwarf races'—a universal example of prehistoric humanity found in both the 'Old' and 'New' worlds—noted that '[i]n general...[t]hey all have a red complexion, and red hair, but like that of a peasant who does not comb or take care of his hair.' See Haliburton, 'Survivals of Dwarf Races in the New World,' *Proceedings of the American Association for the Advancement of Science* 43 (1894): 9, CIHM microfiche no. 5332. For a similar comparison between indigenous peoples and working-class individuals, see Michael Bravo, 'Ethnological Encounters,' *Cultures of Natural History*, ed. Nicholas Jardine, J.A. Secord, and E.C. Spary (Cambridge: Cambridge University Press, 1996), 345; and Gay Weber, 'Science and Society in Nineteenth Century Anthropology,' *History of Science* 12, no. 3 (1974): 276.

[100] While E.B. Tylor believed that non-white races could in fact 'improve' when they came into contact with western influences, John Lubbock had a much harsher view of native potential. Peter Bowler argues that both Lubbock and Charles Darwin were inclined to believe that such contact would not result in the 'improvement' of aboriginal people. See Bowler, 'Victorian Evolutionism and the Interpretation of Marginalized Peoples,' 726.

[101] Boyle, 'Six Lectures [Lecture V: 2-3].' DBP.

an historical and ethnological fact, he continued, 'that all races of man do not show equal potency in the line of advancement even when the lines of opportunities are equally good in one case as in the other... .'[102] Each race, 'with the exception of our own' Boyle maintained, has a 'sticking place' from which no further progress was possible.[103] The contrast with western culture was striking: 'Ours,' he asserted, 'we proudly, and, I think properly, claim as the highest form that has ever been developed, but the possibilities of further advancement are illimitable.'[104] Such conclusions had implications far beyond attitudes and policies regarding Natives. Explicitly drawing upon his own ethnological studies, Boyle protested to Frank Oliver, the Minister of the Interior in Wilfrid Laurier's government, that it was 'foolish ... to introduce as settlers representatives of peoples whose history has shown them to be incapable of high civilization, or any kind of civilization at all, worthy of the name.'[105] Oliver replied quickly and favourably, noting that he was 'glad to read your remarks regarding desirable immigrants. I regard this as a matter of great importance both for the present and future welfare of Canada, and for this reason shall not relax my efforts to attract only the most desirable class of people.'[106] As David Fewson has recently illustrated, such rhetoric was a common feature of the

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[102] Boyle, 'Six Lectures [Lecture VI: 5-6].' DBP.

[103] Boyle, 'Six Lectures [Lecture VI: 7].' DBP.

[104] David Boyle, 'What is Civilization? [n.d.] [typescript].' DBP.

[105] David Boyle to Frank Oliver, 24 April 1907. DBP.

[106] Frank Oliver to David Boyle, 26 April 1907. DBP.

Toronto Globe at the turn of the century. The quality of immigrants to the west (in particular) was of vital consequence in regard to the progress and destiny of the nation.[107]

Within his own fields of anthropology and ethnology, the essential differences between non-native and Native cultures could be illustrated by comparing the performance of their children in school settings. In the early years of formal schooling there was little discernible difference between the two; however, as schooling advanced, there soon came a point where the non-native child rapidly pushed ahead of the aboriginal.[108] In even more striking fashion, the metaphor of 'savage' as child was perhaps most vividly illustrated by aboriginal aptitudes for what Boyle termed the 'art instinct,' a mental capability 'that here and there [indigenous] communities have made considerable progress.'[109] The capacity for 'art instinct' was intensely reflective of human advance, and Boyle was 'disposed to regard advancement in art and in civilization as being synchronous if not almost synonymous.'[110] Reflecting an apparent infantile state of achievement, the pictorial efforts of the nineteenth-century 'savage' closely parallelled those of the average Caucasian child, an analogy that could be clearly discerned in 'representative' drawings by each. Indeed, in providing evidence for this conclusion, Boyle filled the pages of his *Archæological Report* not with sketches by aboriginal artists, but instead with the work of a Toronto kindergarten.[111] As Boyle explained,

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[107] Fewson, 'Society in Decline: Evolutionary Theory and the Idea of Degeneration in the *Toronto Globe*,' especially chapter 2.

[108] Boyle, 'Six Lectures [Lecture VI: 7-8].' DBP. Daniel Wilson noted that when Charles Lyell visited Boston, this same argument was used to justify separate schools for caucasian and African-american children. See Wilson, *Prehistoric Man*, II: 325.

[109] David Boyle, 'Notes,' 13.

[110] Boyle, 'Notes,' 13.

> [t]he efforts of a kindergarten pupil, or of any untaught child, to 'make a man' correspond in results to that of the savage who undertakes to produce a similar drawing, and whether we say in this, or in any other connection, that the savage is but a child, or the child a mere savage is quite immaterial.[112]

Others concurred with this bleak assessment of the intellectual capability of aboriginal peoples. Alexander Chamberlain, who in a double irony had done graduate work with Daniel Wilson at Toronto before completing a Ph.D. in anthropology with Franz Boas at Clark University,[113] noted that his collection of some 300 sketches by Kootenay Indians confirmed the conclusions of an emerging body of international scholarship that perceived that 'the drawings of primitive peoples [are] on the same stage with those of

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[111] See Figures 4.2 and 4.3.

[112] Boyle, 'Notes,' 14.

[113] While residence in Toronto in the early 1890s, Chamberlain worked closely with David Boyle on the *Archaeological Reports* and various closely related matters. See Killan, *David Boyle*, 129, 131-32.

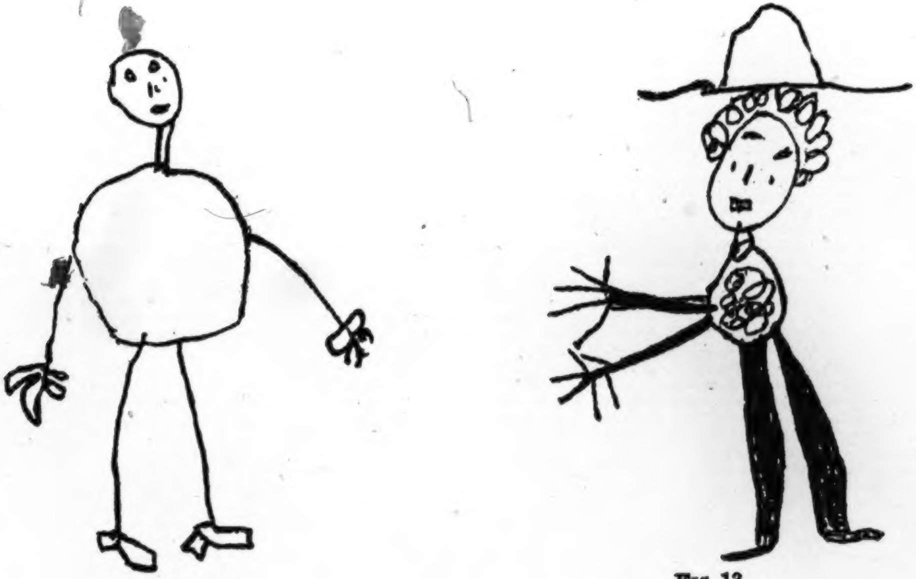
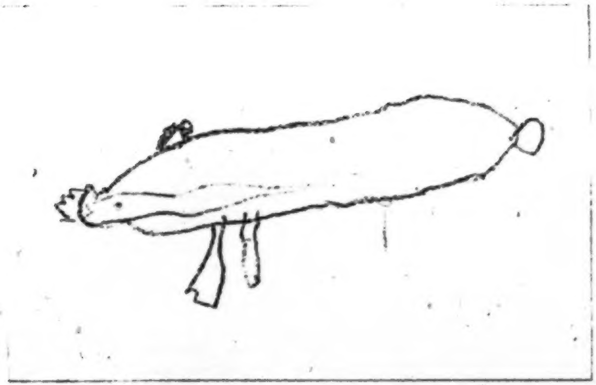


Fig. 12.

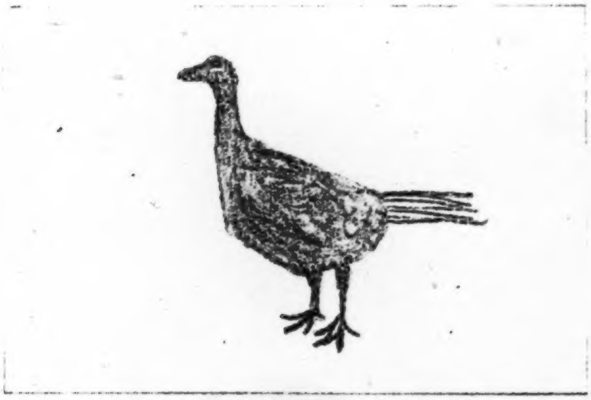
Fig. 13.

Figure 4.2: 'The Human Form in Indian Art.' Drawn by Toronto school children, these images were apparently representative of the aboriginal 'art instinct.'

Source: David Boyle, 'Notes,' *Annual Archæological Report, 1900*, 18.



DRAWING OF HEN BY SIX-YEAR-OLD CHILD.



DRAWING OF GROUSE BY KOOTENAY INDIAN.

Figure 4.3: Comparison of a Drawing by a Child and an 'Indian'.

Source: A.F. Chamberlain, *The Child: A Study in the Evolution of Man*, 172.

children.'[114] The implications that were to be drawn were clear: 'It is acknowledged,' Boyle told a public audience in 1906, 'by all the missionaries, and by all the Indian agents with whom I have ever spoken on this subject that [...] the uncivilized ... must be treated just as children are or as children ought to be treated.'[115]

In making such a comparison, Boyle and others drew on one of the most powerful and predominant racial metaphors of the Victorian era.[116] The Edinburgh-trained botanist, Robert Brown, led the Vancouver Island Exploring Expedition which arrived in the Pacific northwest in 1864. Like Boyle, Robert Brown suggested Native and non-native children had comparable abilities; however, while aboriginal children learn 'very rapidly up to a certain age—say twelve, after which white children start ahead of them. Their intellect seems at that state to get sluggish.'[117] Such thinking was commonly applied to non-white children. In his review of the third edition of Wilson's *Prehistoric Man*, E.B. Tylor noted that in Boston the reason given 'for the coloured children being taught separately from the whites, [was] that although up to the age of fourteen the Negro children advanced in education as fast as the white children, after that point it became difficult to carry them on further.' This assertion, Tylor continued, had been 'often made' and 'many other Englishmen' had heard similar messages.[118] This racial typecasting was not of course confined to African-American children in Boston, and similar illustrations allowed the racial metaphor of the 'Indian as child' to be made explicit: 'It is just as true to say that a savage is a child,' Boyle concluded from this metaphor, 'as it is to say that a child is a savage.'[119] This severe limitation on the intellectual capacity of the Indian was even challenged by some as too generous an assessment. Although he did not deny that there existed a rough likeness between a white child and a 'savage,' George Winter Mitchell ultimately resisted this comparison; instead, he maintained that the non-native child was inherently plastic and, in contrast to the Native, its character and habits could grow in any direction.[120]

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[114] Alexander Francis Chamberlain, *The Child: A Study in the Evolution of Man* (London: Walter Scott, 1901), 193. Chamberlain draws upon the scholarship of Dr. Ernst Grosse in developing this comparison. Also see Alexander Francis Chamberlain, 'Kootenay Group-Drawings,' *American Anthropologist* 3, no. 2 (1901): 248-56. For a sample of Boas' critical approach to Chamberlain's anthropology, see Franz Boas, 'The Child and Childhood in Folk Thought [letter to the editor],' *Science* 3, no. 72 (15 May 1896): 741-42. The notion that the aboriginal art instinct closely parallelled the achievements of white children found lasting resonance well into the twentieth century. Commenting upon aboriginal 'artistic tradition' that 'requires that significant parts of each figure shall be represented whether they would normally be visible or not,' Diamond Jenness commented that this 'is exactly the same reasoning as that of the European child who endows a human profile with two eyes or two ears, although only one of each should be shown in this perspective.' See *The Indians of Canada*, 7th ed. (Toronto: University of Toronto Press, 1977 [1932]), 210; and Peter Kulchyski, 'Anthropology in the Service of the State: Diamond Jenness and Canadian Indian Policy,' *Journal of Canadian Studies* 28, no. 2 (1993): 35-36.

[115] Boyle, 'Six Lectures [Lecture VI: 10-11].' DBP.

[116] Jahoda, *Images of Savages*, 135. As Jahoda notes, both E.B. Tylor and Herbert Spencer made extensive use of this analogy.

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[117] Robert Brown, *The Races of Mankind: Being a Popular Description of the Characteristics, Manners and Customs of the Principal Varieties of the Human Family*, 4 vols. (London: Cassell, Petter, & Galpin, 1873), I: 38.

[118] E.B. Tylor, review of 'Wilson's Prehistoric Man,' by Daniel Wilson, *Nature* 14 (25 May 1876): 66. Wilson, it should be noted, condemned this statement as mere excuse. See Wilson, *Prehistoric Man*, II: 325.

[119] Boyle, 'Six Lectures [Lecture VI: 9-11],' quote from page 9. DBP; and Weber, 'Science and Society,' 276.

Constructing the 'Missing Link'

The construction of a linear metaphor for human evolution in Canada that largely centred around the anthropological investigation and interpretation of Native peoples was due to several factors. Most obviously, North America was replete with contemporary examples of 'living fossils' whose lives supposedly illustrated characteristics associated with stone age societies.[121] In a paper read before the Canadian Institute, for example, Arthur Harvey 'corrected' portraits of prehistoric life that had recently appeared in Paris and London which illustrated a primitive man, naked save for his shawl of skins, returning to his cave to find his wife—'a lovely shape, just like a Paris artists' [sic] model of to-day'—dead and his child being carried off by a lion. When Harvey compared this representation against the habits and appearance of contemporary Indians, he found this portrait false: prehistoric man was clothed against the cold, did not live in fear of wild beasts, and the wife and children were not lovely, save the latter 'in their parent's eyes.'[122] Moreover, reinforced by the example of the stone age 'savage' before them, popular convention and scientific study suggested that North America had been more recently populated than other areas of the world. In presenting his collection of Stone Age relics to Dalhousie College, Rev. George Patterson noted that '[i]n older countries, these [prehistoric] relics have been obtained principally from four sources': burial mounds, kitchen middens, cave dwellings, and lake dwellings. However, presumably because the more recent age of North America made permanent settlements unlikely, '[n]othing of the nature of the last two has ever been found in Nova Scotia, and there is no probability that there ever will.'[123] Indeed, Patterson noted that in both the United States and the Old World some archaeologists had found relics that indicated that humanity was in existence prior to the last glacial age. While not judging 'whether these influences be correct as to those countries or not,' Patterson maintained that in Nova Scotia prehistoric remains 'clearly showed that they were not of the glacial age.'[124] Further, Patterson even objected to the suggestion by some American authorities that stone age society in North America had sufficiently developed to the extent that one could divide it into two eras, the Palaeolithic and the

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[120] George Winter Mitchell, 'Pitfalls in Anthropology,' *Queen's Quarterly* 26, no. 4 (1919): 395.

[121] Rev. George Patterson, 'The Stone Age in Nova Scotia, as Illustrated by a Collection of Relics Presented to Dalhousie College – by the Rev. George Patterson, D.D., New Glasgow,' *Proceedings and Transactions of the Nova Scotia Institute of Natural Science* 7 (1890): 231; and Arthur Harvey, 'Bone Caves – With Especial Reference to Prehistoric Man,' *Transactions of the Canadian Institute* 2 (1890-1891): 116-20. On the belief that North America was more recently settled by humanity than other areas of the world, see T.F. McIlwraith, 'The Progress of Anthropology in Canada,' *Canadian Historical Review* 11, no. 2 (1930): 139; W.J. Orchard, *The Stone Age on the Prairies* (Regina: School Aids and Text Book Publishing Co., 1942), 127; and Frank C. Hibben, 'The First Canadian,'*Maclean's Magazine* 59 (1 October 1946): 13.

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[122] Harvey, 'Bone Caves – With Especial Reference to Prehistoric Man,' 119.

[123] Patterson, 'The Stone Age in Nova Scotia,' 231.

[124] Patterson, 'The Stone Age in Nova Scotia,' 240.

Neolithic. While the Old World could claim such a prehistoric distinction, in North America chipped Palaeolithic and polished Neolithic objects belonged to one era.[125] Since North America was therefore much younger in prehistoric terms and 'obviously' just emerging out of the stone age with the arrival of the European, it was not likely that its fossil record would reveal the earliest human. Even as early as the 1860s, George Mercer Dawson noted the greater tendency European scholars gave to searching for earliest humanity, and urged a similar emphasis in Canada 'where we have so many interesting remains of its former possessors, and their immediate descendants still living among us.'[126] It is telling, however, that even when arguing for more research into earliest humanity, Dawson could not remove himself from the example of the 'primitives' that confronted him.

In spite of this emphasis upon the contemporary Indian as an illustration of the march from stone age to civilization, Canadian anthropologists did occasionally search for the 'missing link' in seeking confirmation of humanity's progress. In the early nineteenth century the famous French anatomist Georges Cuvier had argued for the static nature of species by claiming that 'fossil man does not exist.'[127] In Cuvier's era there were indeed few examples of prehistoric humanity. However, beginning with the discovery of Neanderthal man in 1856, the fossil record began to become more central in illustrating the direction of human evolution. As E.W. Claypole argued in his review of J.Y. and Fanny D. Bergen's *The Development Theory*,

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[125] Patterson, 'The Stone Age in Nova Scotia,' 240.

[126] G.M.D. [George Mercer Dawson], 'Pre-Historic Man in France,' *The Canadian Naturalist* 4, no. 1 (1869): 89.

[127] Ian Tattersall, *The Fossil Trail: How We Think We Know About Human Evolution* (New York: Oxford University Press, 1995), 6.

> every new fact points the same way. "Missing links" come to light connecting species with species in the past, and everyone adds vastly to the force of the cumulative argument. With the discovery of every one, the gaps remaining become less important, and before long the induction may become sufficient to warrant the acceptance of a universal inference by every unbiassed mind.[128]

Although the interpretation of these discoveries was highly contested by both scientists and laymen, some clearly saw each find as illustrative of a linear evolution of humanity. Writing in the *Queen's Quarterly*, M. MacGillivray argued that the stone age could be divided into three well-marked divisions: the early, late and new. Within each of 'the successive stages of life in prehistoric days' there existed representative human fossils.[129] MacGillivray placed *Pithecanthropus erectus* (Java man), a specimen whose crania suggested a low mental development with 'a simian projection of the features' and 'human and rather pathetic eyes' into the earliest era.[130] More advanced along the evolutionary path was *Homo heidelbergensis* (Heidelberg man), who exhibited the necessary characteristics of the 'missing link' by possessing both a simian jaw but also distinctly human teeth. Significantly, both fossils could still claim contemporary correspondents: Java man possessed a brain volume equal to the smaller heads of native Australians, the lowest stage in the hierarchy of humanity, while Heidelberg's most human features approximated 'those of the lower savages of our own day.'[131] This identification of indigenous peoples with successive 'missing links' inevitably contributed to their marginalization. Moreover, the future did not bode well: just as earlier stages of humanity were replaced by subsequent ones, it seemed inevitable that the North American indigene would experience a similar fate. Finally, in the new stone age, there existed two further specimens in the transition from simian to civilization. Neanderthal man possessed 'plenty of muscle in his arm,' yet also exhibited an artistic spirit with which he made flint tools and weapons. His time was not lasting, however. Into his place strode Cro-magnon man, whose head was 'refined, strong and well developed.' Stone age culture changed enormously with this last transition: dwellings and pottery became more common, the wolf was turned to dog, and 'this progressive man proceed[ed] rapidly to the successful taming and herding of other animals.'[132] MacGillivray painted a heroic portrait of the human past: prehistoric man had 'with the rudest tools and weapons, fought against tremendous odds, ... and launched the career which we see in full, if chequered, swing to-day.'[133]

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[128] E.W. Claypole, 'The Development Theory: A Review,' *The Canadian Record of Science* 1, no. 2 (1884-1885): 118.

[129] MacGillivray, 'Men of the Ages of Stone,' 252.

[130] MacGillivray, 'Men of the Ages of Stone,' 253.

A linear interpretation that demanded the possibility of a 'missing link' emerged following Darwin and continued to be present well into (and perhaps throughout) the twentieth century. Victor Le Vaux was one individual who, in his critical review of Darwin's developmental theory, emphasized what he saw as its de-humanizing aspects in teaching 'the slow progressive advance of the gorilla and baboon to civilization.'[134] On the popular level, Charles G.D. Roberts' widely-praised novel *In the Morning of Time* recalls the first appearance of humanity by appealing to its 'hybrid' character. In one compelling scene in the novel, various combatants gathered to observe a titanic struggle between prehistoric combatants, including one 'spectator [who] was not excited at all. He was a large, apelike man—one would have said, rather, a manlike ape, had it not been for the look in his eyes.'[135] Likewise, A.D. Fraser noted in *The Dalhousie Review* in 1923 that the popularity of such a creature grew greatly immediately following Darwin: such a belief was so strong that the 'man on the street' expected to find 'this sub-human type, half-man and half monkey' not in some glacial deposit, but 'wandering somewhere on the face of mother earth.'[136] Fraser noted that this belief was so strong 'even in scientific circles' that expeditions in the 1920s had been dispatched to Africa in search of a living Brontosaurus and to Argentina in pursuit of a specimen of the Plesiosaurus.[137] Likewise, when Raymond Dart, a young Australian anatomist who had recently taken up a position at the University of Wiwatersrand in Johannesburg, publicized the discovery of *Australopithecus africanus* in 1925 at Taungs, South Africa, it was proclaimed by some to be a further illustration of the 'missing link.' Following closely on the heels of the discovery of *Homo rhodesiensis* in Rhodesia (now Zimbabwe) in 1921, it now seemed possible to trace the earliest line of human ancestry to Africa. Dart himself proclaimed that *Australopithecus* was 'the man-ape of South Africa' and that it represented 'an extinct race of apes *intermediate between living anthropoids and man*.'[138] Along similar lines, the Canadian weekly *Saturday Night* ran a sequence of three skulls with the Taungs skull framed by the skulls of a gorilla and a human child. The accompanying caption screamed 'Tracing the "Missing Link"' and noted that 'Darwin's theory of a missing anthropological link between the ape type and the human type which would one day be discovered is recalled by the discovery of a skull in Africa which seems to be an intermediate [type]... .'[139] In the article that followed, William

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[131] MacGillivray, 'Men of the Ages of Stone, 253.

[132] MacGillivray, 'Men of the Ages of Stone,' 258.

[133] MacGillivray, 'Men of the Ages of Stone,' 259.

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[134] Victor Le Vaux, 'The Antiquity of Man,' *The New Dominion Monthly* 3, no. 6 (March 1869): 340.

[135] Charles G.D. Roberts, *In the Morning of Time* (New York: Frederick A. Stokes Company, 1922), 26. On Roberts and some of the praise bestowed upon this novel, see John Coldwell Adams, *Sir Charles God Damn: The Life of Sir Charles G.D. Roberts* (Toronto: University of Toronto Press, 1986), 126-27.

[136] A.D. Fraser, 'Our Prehistoric Ancestry,' *The Dalhousie Review* 2, no. 4 (1923): 425.

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[137] Fraser, 'Our Prehistoric Ancestry,' 425-26.

[138] Raymond A. Dart, '*Australopithecus africanus*: The Man-Ape of South Africa,' *Nature* 115, no. 2884 (7 February 1925): 195-99; emphasis in the original. For a sampling of the controversy that immediately followed, see Arthur Keith, 'The Taungs Skull,' *Nature* 116, no. 2905 (4 July 1925): 11; and Raymond A. Dart, 'The Taungs Skull,' *Nature* 116, no. 2917 (26 September 1925): 462.

[139] 'Tracing the "Missing Link" [caption],' *Saturday Night* 40 (21 March 1925): 2.

Wright, an anthropologist and anatomist associated with the London Hospital Medical School, suggested caution in describing the Taungs discovery as the 'missing link,' arguing at best that it could be located closer to the ape than to humanity.[140] In spite of Wright's caveat, the editorial initiative seemed more congruent with popular sentiment. This belief in the linear ascent of humanity has remained evident: as Michael Ruse notes, a 1993 exhibit on human evolution at the Museum of Natural History in New York City traces progressively from *Australopithecus afarensis* (better known as Lucy) to *Homo sapiens*, while upstairs in the Hall of Primates the progression is from chimpanzee to 'man.'[141]

The Assault on Linear Progress

When Henry Wright came to the University of Manitoba as co-head of the philosophy department following the Great War, he had already established himself as an expert in ethics and the philosophy of religion. Wright had been educated at Cornell, where he had come under the influence of the Canadian-born philosopher Jacob Gould Schurman, and, following a short tenure at Lake Forest College in Illinois, he arrived at Winnipeg where he established himself as one of Canada's leading philosophers over the next three decades. Prior to his arrival in Winnipeg, Wright had published two important volumes, *Self-Realization, An Outline of Ethics* (1913) and *Faith Justified by Progress* (1916).[142] These volumes represented Wright's pre-war outlook; in particular, *Faith Justified by Progress* acted as a testament to the late-Victorian belief in progress.[143] The Great War, however, was not always kind to such faith: in the years following the war, Wright's belief in progress was shaken severely. He explained subsequently that one of the great influences upon ethical thought in English-speaking countries was due 'to [the] problems of social and political organization which was a natural consequence of the war.'[144] Wright's revelation over the rupture of moral progress was not an isolated one. Samuel Dwight Chown, the moderate general superintendent of the Methodist church prior to the establishment of the United Church of Canada in 1925, lamented that '[t]o-day, in Canada, when a time of distress is mentioned our minds quickly turn back to the Great War with all its aftermath of disillusionment.'[145] Similarly, Reverend J.W. Falconer, a leading Presbyterian, addressed the widespread currency of disillusionment arising in the post-War era:

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[140] William Wright, 'The "Missing Link". Has it Really Been Discovered?' *Saturday Night* 40 (21 March 1925): 2.

[141] Ruse, *Monad to Man*, 547, note 1.

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[142] This paragraph draws from Leslie Armour and Elizabeth Trott, *The Faces of Reason: An Essay on Philosophy and Culture in English Canada 1850-1950* (Waterloo, ON: Wilfrid Laurier University Press, 1981), chapter 12.

[143] Armour and Trott, *The Faces of Reason*, 425-26. Also see J. Clark Murray, 'Human Progress,' *The University Magazine* 11 (February 1912): 156-69.

[144] Armour and Trott, *The Faces of Reason*,' 422-26, quotation from page 423.

[145] Samuel Dwight Chown, 'Thou Hast Enlarged Me When I Was in Distress [sermon on Ps. 4:1, n.d.].' S.D. Chown Fonds, United Church of Canada/Victoria University Archives, Toronto. Box 5, file 119.

> The war has uncovered the hideous features of evil. By its entail of calamity it has confirmed the Scripture, 'Sin when it is finished, bringeth forth death.' We had been flattering ourselves upon the progress of the world ... We were priding ourselves on our refinement, our ability, our humanism, thinking that culture was winning its way towards a human perfectability... .'[146]

As the diverse examples of intellectuals such as Henry Wright, Samuel Chown and J.W. Falconer illustrate, the coeval relationship of ideas of progress and degeneration were never very far removed from one another. Indeed, even while M. MacGillivray celebrated the linear ascent from the *Pithecanthropus erectus* and the early stone age to its apogee in contemporary Anglo-Saxon civilization, he cast doubt on its unequivocal advance in the future. Writing in the last year of the Great War, he argued that in the prehistoric past one could see the 'steps, gradations, by which the higher races have advanced since prehistoric time'; however, all future progress for western civilization was at risk since the atrocities committed by the Germans and their allies during the war had revealed 'only too fully how foul a beast may lurk beneath the whitest skin and the shapeliest head, and the most pretentious knowledge.'[147] While the German people were civilized in appearance and dress, their 'unredeemed principles and habit' were reminiscent of a 'prehistoric time' and demonstrated that the race had 'a long way to go before the "Man of Java" is wholly outgrown.'[148] Certainly against his own desires, MacGillivray's comments reveal that a linear and teleological view of the prehistoric record were not going to be a useful device in explaining the moral superiority of western societies.

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[146] Cited in David B. Marshall, *Secularizing the Faith: Canadian Protestant Clergy and the Crisis of Belief, 1850-1940* (Toronto: University of Toronto Press, 1992), 162. Also see A.B. McKillop, *Matters of Mind*, 288-92; Christie, 'Griffith Taylor and the Ecology of Geography,' 116-17; and Ruse, *Monad to Man*, 33-35.

[147] MacGillivray, 'Men of the Ages of Stone,' 260-61.

While the Great War provided a challenge to the concept of linear progress for some intellectuals, emerging evolutionary theory likewise seemed to question a single line of advance for humanity.[149] Faced with evidence that suggested the sudden and complete disappearance of Neanderthal man, Arthur Keith underwent a remarkable personal and professional transformation. Keith, the Conservator of the Museum of the Royal College of Surgeons, was an ardent Darwinist who, until the publication of *Antiquity of Man* in 1915, had been one of the principal proponents of the linear descent of humanity. With the publication of *Antiquity*, however, Keith capitulated from that view: Neanderthal man no longer represented the direct ancestor of humanity, but now began to be seen as a divergent side branch of human evolution.[150] Instead, as the fossil record became both more revealing and more studied, the model of linear ascent became less convincing to anthropologists. While studying in post-War Cambridge, Thomas F. McIlwraith was a recipient of the changing views of human evolution. In McIlwraith's notes of the lectures of A.C. Haddon and A.H. Keane, two of Cambridge's leading anthropologists, it is clear that unity of humanity was emphasized, but also that at some point it had diverged into several distinct branches. Thus, he noted during one of Keane's lectures, while 'the [e]volution of man is highly complex, [with] some forms surviving and others not[,]' it was necessary to conclude that there was '[p]robably more than one race in [the] Palaeolithic Age.'[151] As McIlwraith's student notes suggest, linear evolution had given way to an evolutionary model that emphasized the phylogenetic development of humanity.

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[148] MacGillivray, 'Men of the Ages of Stone,' 260. For similar speculation on how German science led to the onset of the Great War, see P.A. Taverner, 'German Biology,' *The Ottawa Naturalist* 32 (October 1918): 75.

[149] Peter J. Bowler, *Life's Splendid Drama: Evolutionary Biology and the Reconstruction of Life's Ancestry 1860-1940* (Chicago: University of Chicago Press, 1996), chapter 7.

[150] For a discussion of Keith's conversion, see Bowler, *Theories of Human Evolution*, 91-97; and Wolpoff and Caspari, *Race and Human Evolution*, 144-47.

As has been illustrated, the belief in the linear advancement of humanity has been one of the dominant themes in anthropological thought over the past century. While this evolutionary model was challenged by some intellectuals in the years surrounding the Great War, its demise was not lasting. In 1962 at the American Anthropological Association in Chicago, the noted anthropologist C. Loring Brace presented a re-interpretation of the role of Neanderthal man in human ancestry. Brace argued that those who saw Neanderthal as distinct and outside the human line were overly influenced by Georges Cuvier's early nineteenth-century catastrophism and its emphasis on attendant extinctions and subsequent invasions. Instead, Brace adapted the three-scheme paradigm of Gustav Schwalbe and expanded it to four linear stages of human development: Australopithecines, Pithecanthropines, Neanderthals, and finally modern humanity.[152] Of course, this conclusion was not universally accepted. Prior to publication, *Current Anthropology* sent Brace's article to fifty scholars, and reprinted seventeen replies, some of which were hostile. Nevertheless, Brace's position gained currency. Milford Wolpoff, an anthropologist at the University of Michigan, took up Brace's single species argument in the late 1960s. Described as perhaps the loudest voice in the business, Wolpoff had some success in propagating the view of Neanderthal origins and a generation of like-minded offspring emerged.[153] This debate continues: recent DNA evidence has once again suggested that Neanderthals were an evolutionary end and not a transitive stage.[154]

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[151] T.F. McIlwraith, 'Keane, A.H. "Races of Man,"' (n.d.). Thomas F. McIlwraith Papers (TFMP), University of Toronto Archives. Box 6, File 48. Also see T.F. McIlwraith, 'Haddon, A.C. Skulls. With notes on same and Ethnological Survey of British Isles forms. 1921.' TFMP. Box 6, File 43.

In his critique of Brace's paper, W.W. Howells noted the tendency for the 'same material [to] be chewed over endlessly, with occasional new interpretations in the name of theory.'[155] As Howells' comment reveals, the debate over the nature of prehistoric humanity often reflects divergent theoretical interpretations. Brace saw the rejection of the Neanderthal as the 'missing link' in the early twentieth century as a consequence of an attachment to the early nineteenth-century catastrophism of Cuvier, particularly through the influence of Marcellin Boule.[156] Moreover, Brace's call for the inclusion of Neanderthal within the human line was, in part, dependent upon an increased emphasis on the notion that humanity was defined by the possession of culture rather than by any particular physical characteristics.[157] 'Culture is always,' Brace argued in his reply, 'the major conditioner and ... the general characteristic of the adaptive niche occupied by man is that it is a cultural adaptive niche.'[158]

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[152] An expanded version of Brace's presentation appeared as 'The Fate of the "Classic" Neanderthals: A Consideration of Hominid Catastrophism,' *Current Anthropology* 5, no.1 (1964): 3-43.

[153] Tattersall, *The Fossil Trail*, 128.

[154] Jeff Donn, 'DNA Tests Dispute Evolutionary Link Between Neanderthals and Humans,' *Edmonton Journal*, 29 March 2000, A5.

[155] W.W. Howells, 'Comments,' *Current Anthropology* 5, no. 1 (1964): 27.

The discussion revolving around Brace's re-introduction of Neanderthal man into the human line illustrates the profound role that ideology plays in the construction of various interpretations of prehistory. Brace maintains that the early twentieth-century decision to exclude Neanderthal was a reflection of the strength of the Cuvierian legacy which emphasized the role of castastrophism in the development of the physical world. Likewise, Brace's decision to include Neanderthal lay partly in his re-interpretation of prehistoric methodology: cultural practices now became as important as physical traits in defining 'humanness.' In similar fashion, the construction of the Victorian synthesis was deeply dependent upon an imperialist ideology that demanded that indigenous people be viewed in a very different manner from white, Anglo-Saxon society. In an era that saw the creation of a nation state and the colonization of 'its' Native peoples, it is clear that self-made men such as David Boyle and the establishment of a rigid cultural evolutionism aided in the creation of an ideological and scientific programme that effectively denied the possibility that aboriginal people would participate in the grand scheme of Canadian 'civilization.'

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[156] C. Loring Brace claims Boule was influential in the conversion of Arthur Keith to the idea of unilinear descent, while Peter Bowler sees no evidence that this was in fact the case. See Brace, 'A Consideration of Hominid Catastrophism,' 11; and Bowler, *Theories of Human Evolution*, 92.

[157] Tattersall, *The Fossil Trail*, 127.

[158] Brace, 'Reply,' *Current Anthropology* 5, no. 1 (1964): 36.

Among the Polyphyletic Woods: The Creation of the Evolutionary Tree

> There are some trees, Watson, which grow to a certain height, and then suddenly develop some unsightly eccentricity. You will see it often in humans. I have a theory that the individual represents in his development the whole procession of his ancestors, and that such a sudden turn to good or evil stands for some strong influence which came into the line of his pedigree. The person becomes, as it were, the epitome of the history of his own family.
>
> Sherlock Holmes[1]

> For us, primitive societies (*Naturvölker*) are ephemeral, that is, as regards our knowledge of, and our relations with, them, in fact, inasmuch as they exist for us at all. At the very instance they become known to us they are doomed.
>
> Adolf Bastian (1881)[2]

The second son of John and Margaret Dawson was born in Pictou, Nova Scotia, in 1849.[3] Ultimately destined to become one of Canada's leading nineteenth-century geologists, George Mercer Dawson had an inauspicious beginning: his body stricken with Pott's disease (tuberculosis of the spine) as a young boy, Dawson began his intellectual journey at the hand of his famous father and through a series of tutors. This informal education was followed by a year at McGill (where his father had become principal in 1855), after which Dawson enrolled in the three-year programme at

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[1] Arthur Conan Doyle, *The Penguin Complete Sherlock Holmes*, 494; cited in Pick, *Faces of Degeneration*, 155.

[2] Cited in Johannes Fabian, *Time and the Work of Anthropology: Critical Essays 1971-1991* (Chur: Harwood Academic Publishers, 1991), 194.

[3] The oldest son, James, died a month prior to George's birth.

London's Royal School of Mines, an institution that included such distinguished faculty as Sir Roderick Murchison, Sir Andrew C. Ramsay, and T.H. Huxley. The transition from his Presbyterian Canadian upbringing to London must have been dramatic, and after a halting beginning to his studies Dawson excelled winning both the Murchison Medal and Prize and the Edward Forbes Medal in his second year. He repeated the Forbes Medal in his third year and graduated first in his class in 1872. Following a two-year appointment as geologist and botanist to the North American Boundary Commission, Dawson joined the Geological Survey of Canada, ultimately becoming its director with the retirement of A.R.C. Selwyn in 1895.[4]

As a cursory examination of his educational background suggests, George Dawson was exposed to some of the principal intellectual currents of the last half of the nineteenth century. Although his father's scientific credibility has sometimes been dismissed, largely on the basis of his strident opposition to Darwin's evolutionary theory, his most recent biographer has sought to re-establish his reputation as one of the leading geologists of his era.[5] In spite of his extreme opposition to Darwin, the elder Dawson steered his son toward the Royal School of Mines where, as one obituarist recorded, 'he [George Dawson] paid special attention to the study of geology under [Andrew] Ramsay ... [and] [Thomas Henry] Huxley,' both of whom were convinced evolutionists.[6] As Adrian Desmond notes, in contrast to Oxford and Cambridge 'wicked London was suspect' in the early years following the publication of *On the Origin of Species* in 1859, and it was against the protestations of Roderick Murchison that the staff of the Royal School of Mines 'swung behind Darwin [in the 1860s], giving him his first corporate support.'[7] Indeed, it was Huxley himself who had nominated George Dawson for the Forbes Medal for standing first in natural history and palaeontology,[8] and had commented favourably on his student's 'large knowledge of Natural History,

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[4] This paragraph draws from several sources. On George Mercer Dawson see WJM [William J McGee], 'George Mercer Dawson,' *American Anthropologist* 3, no. 1 (1901): 158-63; H.M. Ami, 'The Late George Mercer Dawson,' *The Ottawa Naturalist* 15 (1901): 43-52; Bernard J. Harrington, 'George Mercer Dawson,' *The Canadian Record of Science* 8, no. 7 (1902): 413-25; George Mercer Dawson, 'Biographical Sketches,' Dawson Family Papers, McGill University Archives. Box 81, file 20; Lois Winslow-Spragge, *The Life of George Mercer Dawson, 1849-1901* (n.p.: n.d., ca. 1962); Joyce C. Barkhouse, *George Dawson, the Little Giant* (Toronto: Clarke, Irwin & Company, 1974); John J. Van West, 'George Mercer Dawson: An Early Canadian Anthropologist,' *Anthropological Journal of Canada* 14, no. 4 (1976): 8-12; Douglas Cole and Brad Lockner, ed., 'Introduction,' in *The Journals of G.M. Dawson, 1875-1878*, 2 vols. (Vancouver: University of British Columbia Press, 1989), I: 1-31; and William Chalmers, *George Mercer Dawson: Geologist, Scientist, Explorer* (Montreal: XYZ Publishing, 2000). For a bibliography of Dawson's published writings, see H.M. Ami, 'Bibliography of Dr. George M. Dawson,' *The Canadian Record of Science* 8, no. 8 (1902): 503-16.

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[5] Sheets-Pyenson, *John William Dawson*, 117-18, 206-7.

[6] Harrington, 'George Mercer Dawson,' 416. Although Ramsay was a Darwin convert, he and his wife did not accompany Huxley and others to the Swiss Alps because the naturalist had so 'alarmed [Louisa Ramsay] ... by his want of faith' that 'she worked herself into a fever.' There was some apparent fear of what Huxley might say halfway up the Matterhorn. See Adrian Desmond, *Huxley* (London: Penguin Books, 1998), 228. For J.W. Dawson's vital and successful role in orchestrating and directing his son's career, see Cole and Lockner, 'Introduction,' 7-8.

[7] Desmond, *Huxley*, 267.

[8] Cole and Lockner, 'Introduction,' 6.

Palæontology and Geology... .'[9] Although Dawson's career was orientated toward geology more than anthropology and (perhaps in deference to his father) he tended to avoid theoretical conflicts over the origin of human life, his ethnological work does contain hints of the emerging derivation thesis that was no doubt a central part of his London experience. In 1878 his travels for the Geological Survey took him to the Queen Charlotte Islands where he recorded ethnological data on the Haida and, as H.M. Ami noted, he 'distinguished himself ... as an ethnologist of repute.'[10] Here, in Dawson's manuscript notes on the Haida, his exposure to evolutionary theory is apparent. In speculating on the origins of the Haida, Dawson argued that 'they [have] been developed slowly in a community separated from the human stock at a very early period, + might they,—had they never been brought face to face with a superior power—have grown in the course of ages into an independent civilization like that of Mexico or Peru?'[11] Indeed, he noted that in customs and modes of life and thought, 'there is complete diversity between the coast Indians + and those of the interior, a diversity which practically transcends the racial divisions.'[12] Dawson's intent is clear: the Haida were an example of a branch of the evolutionary human tree whose racial character was so different that they might well be of separate stock from other aboriginal groups. As Peter Bowler notes and the Dawson notations indicate, the late nineteenth century saw the collapse of the simple linear ladder of evolution in favour of a branching or polyphyletic metaphor in which varieties of past and present 'man' could diverge from the main stock of humanity.[13] In the first decades of the twentieth century, the gentleman anthropologist Charles Hill-Tout noted this change within the evolutionary paradigm, arguing that 'we must give up our own monophyletic conception of man's descent and accept a polyphyletic one and see in the Heidelberg and Neanderthal men, in the 100-foot terrace men and possibly in Eoanthropus as well, types of men so widely differentiated from one another as to constitute distinct species or even genera.'[14]

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[9] George Mercer Dawson, 'Biographical Sketches.' Dawson Family Papers, McGill University Archives. Box 81, file 20.

[10] Ami, 'The Late George M. Dawson,' 49.

[11] George Mercer Dawson, 'The Haida Indians.' Dawson Family Papers, McGill University Archives. Box 81, file 17. Also see George Mercer Dawson, 'The Haidas,' *Harper's New Monthly Magazine* 65 (1882): 401-8; and idem, 'On the Haida Indians of the Queen Charlotte Islands,' in *Geological Survey of Canada. Report of Progress for 1878-79* (Montreal: Dawson Brothers, 1880): 103B-75B.

Charles Hill-Tout and the Growth of the Evolutionary Tree

At the Royal Society of Canada meeting in 1895, George Mercer Dawson communicated a paper written by Charles Hill-Tout which contended that the prehistoric crania that he had examined bore little resemblance to those of contemporary Native groups, an argument that fit neatly into Hill-Tout's belief that various branches of now 'antecedent and forgotten tribes' had once inhabited North America.[15] This paper generated some debate and disagreement, and constituted an inchoate venture into a polyphyletic model of human evolution. Hill-Tout's debt to Darwinian evolution was not fully formed and it was only in the post-war era that he became one of the most forceful Canadian proponents of such a view. Together with his wife Edith and daughter Beatrice, Hill-Tout had emigrated to Toronto from England in 1884. There his life and career shared many parallels with that of David Boyle: both had little formal training in anthropology or archaeology, had careers as school teachers, lectured widely on matters of science, helped to establish educational societies, and maintained uneasy relationships with orthodox Christianity.[16] In what appears an incomplete effort at autobiography, Hill-Tout 'remembered' that while he had attended lectures during his theological year at Oxford, he had come under the influence of Huxley and Darwin; this intellectual encounter proved to be a critical step in the shaking of his Christian faith.[17] However,

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[12] George Mercer Dawson, 'The Haida Indians.' Dawson Family Papers, McGill University Archives. Box 81, file 17.

[13] Bowler, *Theories of Human Evolution*, 4-15.

[14] Charles Hill-Tout, 'The Phylogeny of Man From a New Angle,' *Transactions of the Royal Society of Canada* 15 (1921): 62-63.

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[15] Hill-Tout, 'Later Prehistoric Man in British Columbia,' 114.

[16] For an uncritical examination of Charles Hill-Tout, see Judith Judd Banks, 'Comparative Biographies of Two British Columbia Anthropologists: Charles Hill-Tout and James A. Teit,' (unpublished MA thesis, University of British Columbia, 1970). More briefly, see Marius Barbeau, 'Charles Hill-Tout,' *Proceedings of the Royal Society of Canada* 34 (1945): 89-92; David Lonergan, 'Hill-Tout, Charles,' *International Dictionary of Anthropologists* (New York: Garland Publishers, 1991), 290-92; and George Woodcock, 'Hill-Tout, Charles,' *The Canadian Encyclopaedia* (Toronto: McClelland & Stewart, 1999), 1076.

[17] Charles Hill-Tout (?), 'Professor Hill-Tout [typescript].' Charles Hill-Tout

(continued...)

despite sharing with Boyle an uneasy relationship with orthodoxy, Hill-Tout's model of human development was ultimately much different than that advanced by the Elora (and later Toronto) anthropologist. Following visits to British Columbia and to England, the Hill-Touts settled in Vancouver in 1891, where he continued his teaching career, became active in local, national and international scientific societies, and pursued a vigorous agenda of archaeological and ethnological research.[18] Despite his lack of formal training and an academic position—which did not prevent him from arrogantly insisting on being called 'professor'—Hill-Tout pursued a vigorous anthropological agenda that allowed him to become a principal player in the British Association for the Advancement of Science's Ethnological Survey of Canada and eventually a Fellow of the Royal Society of Canada. Indeed, despite Hill-Tout's lack of academic qualifications, his stature in the field was illustrated when Dr. Frank Fairchild Westbrook, president of the recently founded University of British Columbia, asked Edward Sapir, the head of the anthropological division of the Geological Survey of Canada, whether Hill-Tout might

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[17](...continued)
Fonds, Special Collections and University Archives, University of British Columbia. Box 2, file 5. Judith Banks has grave doubts regarding the veracity of Hill-Tout's claim that he had attended Oxford. See Banks, 'Comparative Biographies of Two British Columbia Anthropologists,' 10-12.

[18] Hill-Tout was a founding member of the Vancouver Art, Historical and Scientific Association in 1894. He collected organizational titles as he did prehistoric artifacts, and in subsequent years became a Fellow of the Royal Society of Canada; a Fellow and Local Correspondent of the Royal Anthropological Institute (England); Vice-President of the Canadian Department of the American Institute of Archaeology; and Organizing Secretary of the Committee Appointed by the British Association for the Advancement of Science for the Ethnological Survey of Canada.

be suitable as the head of the Department of Anthropology.[19] Sapir, of course, did not. Even Franz Boas, who obviously had profound intellectual differences with Hill-Tout and commented upon his 'remarkable ability of exasperating everyone with whom he comes into contact,' still thought the self-made anthropologist to be a good and useful collector.[20]

While a mature Hill-Tout 'remembered' the formative influence of Darwin and Huxley while at Oxford, his commitment to the organic evolution of humanity and other species drew inspiration and increased in intensity as a result of the post-Great War hardening of incipient Fundamentalist attitudes toward evolutionary theory. As historian James Moore argues, trans-Atlantic Protestant attitudes toward evolution were much more hostile and critical in the 1920s than they had been prior to the war when evangelical evolutionists such as Benjamin B. Warfield and George Frederick Wright had participated in the writing of *The Fundamentals* (1910-1915), a twelve-volume series that outlined a systematic Christian theology on a number of important themes.[21]

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[19] Frank Fairchild Westbrook to Edward Sapir, 23 June 1916. Edward Sapir Correspondence, Canadian Museum of Civilization, Hull. Box 624, file 10. Although Hill-Tout did not become department head at UBC, Westbrook did write him a generic letter of reference lauding his contribution to Canadian anthropology. See F.F. Westbrook to To Whom it May Concern, 11 October 1916. Charles Hill-Tout Fonds, Special Collections and University Archives, University of British Columbia. Box 1, file 45.

[20] Franz Boas to R.W. Brock, 14 May 1910. Boas Professional Papers, American Philosophical Society, Philadelphia.

[21] Moore, *The Post-Darwinian Controversies*, 68-76; and Livingstone, *Darwin's*

(continued...)

By the 1920s an anti-evolutionary posture had been adopted by a number of conservative Christians, culminating most famously in the Scopes-Monkey Trial in Tennessee (1925), that dramatic court battle that pitted William Jennings Bryan against Clarence Darrow, the American Civil Liberties Union and (in an incidental fashion) John Scopes, a young high school biology teacher, who was charged with violating the Butler law which prohibited the teaching of any theory of origins not in accordance with the book of Genesis.[22] In response to this rise in anti-evolutionary thought, Charles Hill-Tout published *Man and His Ancestors in Light of Organic Evolution* (1925), a work that regarded organic evolution as the principal determinate of historical change, and reflected the culmination of several decades of work on prehistoric peoples.[23]

Writing almost two decades after Boyle's principal publications, Hill-Tout had knowledge of a much larger number of archaeological finds. Like similarly oriented

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[21] (...continued)
Forgotten Defenders, chapters 4-5.

[22] On the Scopes trial the standard source is Edward J. Larson, *Summer for the Gods: The Scopes Trial and America's Continuing Debate Over Science and Religion* (Cambridge: Harvard University Press, 1997).

[23] Charles Hill-Tout, *Man and His Ancestors in Light of Organic Evolution* (Vancouver: Cowan Brookhouse, 1925). For Hill-Tout's outrage over the rise of anti-evolutionism see pages v, 33, and 155-57. On the development of his thought regarding things prehistoric see Charles Hill-Tout, 'Later Prehistoric Man in British Columbia,' *Transactions of the Royal Society of Canada* 1 (1895): 103-22; idem, 'The Phylogeny of Man From a New Angle,' *Transactions of the Royal Society of Canada* 15 (1921): 47-83; and idem, 'Recent Discoveries and New Trends in Anthropology,' *Transactions of the Royal Society of Canada* 17 (1923): 1-27. The copy of *Man and His Ancestors* in the Bryan-Gruhn Collection, University of Alberta, is inscribed to D.C. Scott in Hill-Tout's hand.

teleological prehistorians, Hill-Tout saw archaeology as illustrating the development of humanity: for example, one could trace technology backwards in the archaeological record until it was impossible to determine whether an item was the product of human hands or merely an accident of nature.[24] The ability to trace this development offered great utility and justified the intrusive examination of indigenous populations. 'In any consideration of human progress,' Hill-Tout noted,

> we soon discover that the present has its roots and affiliations deep down in the past. Past, present and future, as far as man and his history are concerned, are so closely connected and interwoven as to be quite inseparable. He who would fully understand the present or make an intelligent forecast of the future must first know what the past has to teach and reveal to him. This is why the study of man's past has gained such an importance of late years; and why it has been found necessary to give so much time and attention to the study of the institutions, practices, customs and beliefs of primitive peoples, such, for example, as the native races of this continent.[25]

Moreover, it was not necessary to rely solely upon prehistoric relics in order to discern the human pattern. Much more explicitly than linear models of human development, polyphyletic approaches were to draw upon biological models. In his review of Ernst Haeckel's *Anthropogenie* (1874), the University of Toronto biologist R. Ramsey Wright noted that the corroborative evidence of Darwin's law of descent on various scientific disciplines, including anthropology, comparative anatomy and embryology. In addition to 'giving a good notion of the doctrine of evolution,' Haeckel's 'phylogenetic fragments' reinforced the belief that anthropology and biology were intimately related in arriving at 'an approximate evolutionary history of man.'[26] As Wright noted, a more complete rendering of this history drew upon different disciplines, for palaeontology was necessarily limited in the exploration of the non-craniate history of human evolution. In seeking to examine humanity's evolutionary past more fully, Haeckel drew particularly upon recapitulation thesis, a predominantly nineteenth-century inquiry into embryologic theory.[27] As Haeckel made famous and Wright noted, the 'ontogenesis of any form is a short recapitulation of its phylogenesis': or, more simply, that the past development of a species (its phylogeny) was evident in the growth of a modern embryo (its ontogeny).[28] By observing the development of a modern embryo of a human, for example, one could thus trace its evolutionary history.

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[24] Hill-Tout, *Man and His Ancestors*, 120.

[25] Charles Hill-Tout, 'Is There a Fundamental Difference in Racial Aptitudes and Capacities, and Does the Mind of the Savage Differ Essential From That of the Savant?' Vancouver Art, Historical and Scientific Association, *Museum and Art Notes* (December 1919): 149.

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[26] R. Ramsey Wright, 'Haeckel's "Anthropogenie,"' *The Canadian Journal of Science, Literature and History* 15, no. 92 (1876): 248, 239.

[27] As Stephen Jay Gould makes clear, recapitulation theory in one form or another had ancient roots and even still retains some contemporary resonance. Its peak influence, however, largely parallelled the academic life of Ernst Haeckel (1834-1919) with whom the theory is most intimately associated. For a discussion of recapitulation theory, see Bowler, *Invention of Progress*, 10, 155-57; idem, *Evolution: The History of an Idea*, rev. ed. (Berkeley: University of California Press, 1989 [1983]), 127-30; Stephan Jay Gould, *Ontogeny and Phylogeny* (Cambridge, MA: The Belknap Press of Harvard University Press, 1977); Piet de Rooy, 'Of Monkeys, Blacks and Proles: Ernst Haeckel's Theory of Recapitulation,' in *Imperial Monkey Business: Racial Supremacy in Social Darwinist Theory and Colonial Practise*, ed. Jan Breman (Amsterdam: Vu University Press, 1990), 7-34; Misia Landau, *Narratives of Human Evolution* (New Haven: Yale University Press, 1991), chapter 2; Wolpoff and Caspari, *Race and Human Evolution*, 131-136; and Jahoda, *Images of Savages*, chapter 13.

[28] Wright, 'Haeckel's "Anthropogenie,"' 232.

Much more explicitly than Boyle, Hill-Tout extended his progressionist scheme to include the development of humanity from its embryonic and prehistoric roots. Hill-Tout argued that the human embryo passes through a series of non-human phases before emerging in its final form in which he had 'sovereignty over all other forms of life.'[29] For Hill-Tout and others, recapitulation theory served a useful ideological purpose: for instance, in linking humanity to the animal world, it reinforced the idea that nature itself had a progressionist plan that led teleologically toward contemporary western humanity.[30] Moreover, it served as a useful prelude to the revelations of the archaeological record. In their contemporary forms, humans and apes shared similar anatomical and embryological features that betrayed their common ancestry. This heritage manifested itself in a series of shared ancestors. While Hill-Tout recognized the scanty evidence of fossilized remains, he also pointed toward discoveries of Neanderthal man in Gibralter (1848) and Germany (1857), Eugene Dubois' discovery of Java man (*Pithecanthropus erectus*) in 1891, and the finding of the infamous Piltdown man by Charles Dawson and Sir Arthur Smith Woodward in 1912 as examples of the transitional forms through which humanity had previously passed.[31] In combination, the embryological and fossil evidence proved decisive in establishing the 'descent of man from lower forms of life' and his 'genetic relationship with the other Primates, and especially to the anthropoid apes.'[32]

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[29] Hill-Tout, *Man and His Ancestors*, 116; and idem, 'The Phylogeny of Man,' 67-68, 82. As Piet de Rooy notes, recapitulation theory often provided scientific justification for the inequality of races or classes. See 'Of Monkeys, Blacks and Proles,' *passim*.

[30] Bowler, *Evolution*, 126-30. See Figure 5.1.

While Hill-Tout's understanding of recapitulation theory lacked sophistication,[33] he found 'its validity ... unassailable .... [I]t reveals to us many important truths.'[34] As Stephen Jay Gould provocatively notes, the biogenetic formula that ontogeny recapitulates phylogeny seemed compelling to the broad Darwinian eye, and was easily translated into a host of diverse disciplines.[35] In addition to operating as a metaphor both for organic development and a branching model of development,[36] recapitulation theory anticipated the fossil record in identifying different elements of human stock. Drawing upon the work of Arthur Keith and Louis Bolk, Hill-Tout noted that

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[31] For excellent introductions into the so-called missing links see John Reader, *Missing Links: The Hunt for Earliest Man* (Boston: Little, Brown, 1981); and Tattersall, *The Fossil Trail*. The literature on the Piltdown forgery is enormous. For a recent account, see Frank Spencer, *Piltdown: A Scientific Forgery* (New York: Natural History Museum Publications, 1990).

[32] Hill-Tout, *Man and His Ancestors*, 117.

[33] For instance, Hill-Tout spoke of 'taking the law in its general sense,' and glossed over Karl Ernst von Baer's criticisms of recapitulation theory while claiming his general consent for the theory. See 'The Phylogeny of Man,' 67-68.

[34] Hill-Tout, 'The Phylogeny of Man,' 68.

[35] Gould, *Ontogeny and Phylogeny*, chapter 5; and Jahoda, *Images of Savages*, chapters 12-13.

[36] Gould, *Ontogeny and Phylogeny*, 109-10.

> man came by his naked skin and the blond race by its absence of pigmentation by inheriting a fœtal condition from some anthropoid ancestor. What was clearly a passing phase in the fœtal life of the anthropoids, as exhibited by these modern chimpanzees, had at some time in the distant past persisted through to the birth period, and the first blondish and hairless ape was brought into being. From this creature, by the fixation and inheritance of these humanoid characters, man arose. It may be added that Keith holds the view that the pigmented races—the black, yellow and red races—are later in time than, and modified forms of, the more primitive blond type. This type is certainly more hairy than any of the others, and in that respect, at least, is closer to the apes.[37]

Whether one accepted the 'weighty deduction of Keith or Bolk, or not,' Hill-Tout concluded that 'it is an extremely plausible one and does no violence to the facts from which it is drawn.'[38] Although Bolk eventually reversed recapitulation theory in favour of human paedomorphosis, his use of embryonic biology continued to illustrate the superiority of some racial groups over others: 'I am, on the basis of my theory,' he noted, 'a convinced believer in the inequality of races. All races have not moved the same distance forward on the path of human evolution.'[39]

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[37] Hill-Tout, *Man and His Ancestors*, 117.

[38] Hill-Tout, *Man and His Ancestors*, 117.

[39] Cited in Gould, *Ontogeny and Phylogeny*, 133. As Gould notes, '[u]nder recapitulation, whites, as children, reach the level of black adults; whites then continue on to higher things during their ontogeny. ... Under paedomorphosis, white adults retain the characteristics of black children, while blacks continue to develop (or rather devolve) during their ontogeny' (132).

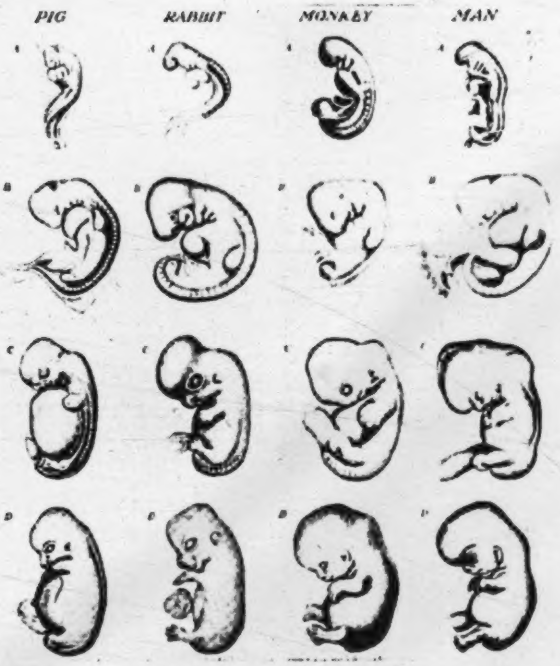

FIG. I.

COMPARISON of the embryos of the Pig, Rabbit, Monkey, and Man at corresponding stages of development. The embryos of each animal are arranged in the vertical columns according to age, beginning with the youngest stage at the top. Stage A of the human embryo is fully labelled and the corresponding structures in the other embryos can be noted. a head region; b, eye; c, ear; d, gill slits; e, heart; f, fore limb; g, primitive muscle segments; h, hind limb; i, tail region. Slightly modified from K. Guenther, after Keibel.

Figure 5.1: Embryonic development of the Pig, Rabbit, Monkey and Man

Source: Charles Hill-Tout, *Man and His Ancestors*, following p. 116

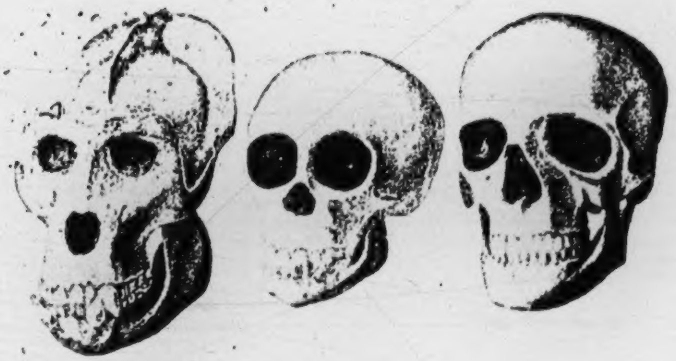

FIG. IX.

(A.) Characteristic mature gorilla skull, showing bony projections for muscle attachment.

(B.) Immature young gorilla skull, showing ancestral type.

(C.) Typical human skull, showing same primitive characters seen in the young gorilla.

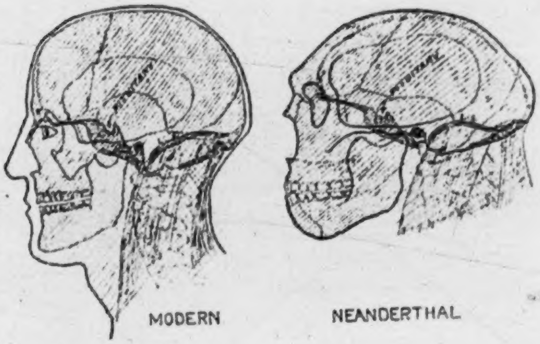

FIG. X.

Diagram showing poise of the head in the modern and Neanderthal types of man.

(After Keith.)

Figure 5.2: Simian and 'Civilized' Crania. Neanderthal appeared relatively late in the evolutionary tree and seemingly had many ape-like characteristics. While many placed it in the direct line leading towards humanity, Hill-Tout and others saw Neanderthal man as a divergent offshoot from the main human stem.

Source: Charles Hill-Tout, *Man and His Ancestors*, following p. 124.

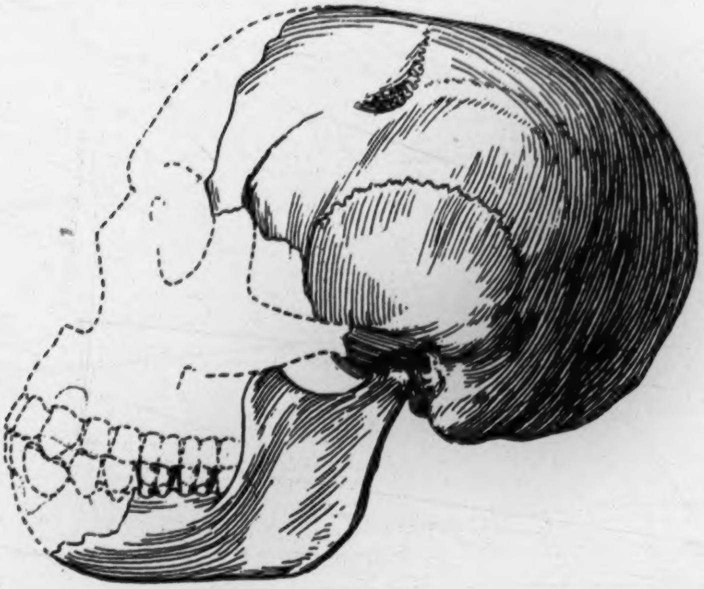

FIG. VI.
EOANTHROPUS DAWSONI.
Re-construction of the Piltdown Skull according to Smith Woodward.
(With acknowledgments.)

Figure 5.3: Infamous Piltdown. In contrast to W.R. Harris and other sceptics, Hill-Tout embraced Piltdown as a central piece of evidence in the ascent of humanity.

Source: Charles Hill-Tout, *Man and His Ancestors*, following p. 122.

Although Boyle and Hill-Tout shared a common commitment to biological evolution, their theories of development differed significantly. Indebted to the evolutionary thought of John Lubbock and E.B. Tylor, David Boyle envisioned a series of linear stages through which anthropoids and humanity progressed. In contrast, Hill-Tout relied upon (sometime) Darwinian scholars such as Haeckel, Sir Arthur Keith and others, who interpreted the Neanderthals and *Pithecanthropus* as offshoots of a line that otherwise led directly toward contemporary man. The metaphors used to describe each developmental scheme differed significantly: Boyle and other classical evolutionists saw cultural development as a ladder up which humanity progressed; contemporary 'savages' were relics, whose advance had been halted, perhaps permanently. In contrast, Hill-Tout employed a version of Darwin's metaphor of a tree, the trunk of which led in teleological fashion from the earliest origins of life toward contemporary 'civilized' humanity. Prior to the discovery of prehistoric fossils with 'distinctly modern characters' alongside those of 'markedly-primitive Neanderthal men,' it had been generally supposed 'that man in his upward course had passed though an orderly series of evolutionary phases, ... in which he had risen step by step from some primitive creature not greatly unlike the anthropoids of to-day, to his present form... .' The contemporaneous placement of modern and neanderthal relics, however, had 'brought considerable confusion into our notions respecting the age of man and the course he had followed in his physical development.'[40]

The discoveries of prehistoric relics indicated that 'the deeper and more fundamental differences which divide the four great groups of humanity [the Australian, African, Mongolian, and European] one from the other must be the result, not merely of tens of thousands of years of variation, but of hundreds of thousands.'[41] Although Hill-Tout noted that fossil evidence for the direct line of the 'genealogical tree of man' existed only for the European, he speculated that within each of the four great groups of humanity there existed further branching. Research had made clear that the European could be further divided into three distinct types: the Mediterranean, Teutonic or Baltic, and the Alpine or Celtic, all of which could be traced back to the Neolithic or the late Palaeolithic eras.[42] Significantly, prehistoric records primarily revealed the ancestral history of the European type; the lineage of other races was deduced mainly by 'indirect and inferential' means, with the notable exception of Java man.[43] As a consequence, anthropologists were able to trace the physical and technological 'progress' of European prehistory, while at the same time arguing that other cultures were characterized by the lack of a discernible pattern.[44]

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[40] Hill-Tout, 'The Phylogeny of Man,' 47.

[41] Hill-Tout, 'The Phylogeny of Man,' 51.

[42] Hill-Tout, 'The Phylogeny of Man,' 51, 57.

[43] Hill-Tout, 'The Phylogeny of Man,' 50-51.

In addition to charting the various branches of humanity, Hill-Tout utilized the metaphor of the tree and its innumerable branches to explain apparent anomalies in the fossil record. According to progressive evolution and a growing belief in the late nineteenth century linking brain size and mental development, it was assumed that human fossils would show an increase in cranial capacity as humanity advanced toward its contemporary form.[45] For example, Piltdown man, Hill-Tout noted, lacked the 'ape-like appearance' of the earlier Java or Neanderthal type, and in 'its smooth and well-informed brow' and in its 'brain volume' came closest to twentieth-century humanity.[46] Likewise, the Cro-Magnon was seen as the most magnificent example of prehistoric humanity; it came, of course, as little surprise that it was 'to this prehistoric race that our leading ethnologists trace the present ... peoples of Europe.'[47] However, although he tended to ignore critics of the fossil record, Hill-Tout was concerned that geological evidence indicated that more 'modern-looking' individuals had, in fact, preceded the 'ape-like Neanderthals' and thus had disrupted the teleological pattern of development from monad to man.[48] A polyphyletic metaphor of human development provided the solution to this 'very disturbing addition to our knowledge of Palæolithic man': the more ape-like remains 'must now be looked upon as divergent off-shoots from the main human stem, and not as related to us directly at all.'[49] Displaying a logic that potentially contained horrifying implications, Hill-Tout argued that if the ape family could diverge into a variety of species, it was probable that '[w]hen man was in the making ... more than one type of him came into existence.'[50] Thus, while humans and apes shared a common ancestor, the crania of the latter most closely compared to 'some of the backward races of today.'[51] The implications of such thinking were clear: according to Hill-Tout, biological evolution had culminated in a single dominant and superior type that asserted itself over all others. The uneasy relationship that John Lubbock maintained with the psychic unity of humanity had reached a more pronounced form in this later group of evolutionary anthropologists: as he reflected upon the palaeontological evidence it was clear to Hill-Tout that humanity—much like contemporary anthropoids—had 'differentiated into several distinct types, some relatively advanced and some distinctly degenerate.'[52] While it is true, as historian Doug Cole notes, that Canada was not to be a breeding ground for polygenist thought, Hill-Tout's polyphyletic model illustrated a commitment to racial type that took differences between human groups as profoundly significant.[53] This argument for racial distinction found its origins deep within human prehistory: the magnificent Cro-Magnon led whiggishly toward the European, while other human groups could vaguely claim an evolutionary lineage to other ape-like ancestors. Thus, while most post-Darwinian evolutionists were uncomfortable with polygenist thought or had even repudiated it, they nevertheless were able to construct separate and independent lines of human development.[54]

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[44] Trigger, 'Archaeology and the American Indian,' 662-76.

[45] As evidence, Hill-Tout pointed to 'well-known experiments upon certain students at Cambridge [that] have shown that increased mental activity results in increased brain volume.' See 'The Phylogeny of Man,' 66.

[46] Hill-Tout, *Man and His Ancestors*, 123-124; and Bowler, *Invention of Progress*, 98-99. See Figures 5.2 and 5.3.

[47] Hill-Tout, 'Recent Developments in Anthropology,' 20; and idem, 'The Phylogeny of Man,' 59-62.

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[48] Hill-Tout, *Man and His Ancestors*, 121-24; and idem,'Phylogeny of Man,' 47-48. While Hill-Tout claimed an intellectual kinship with individuals such as T.H. Huxley and Sir Arthur Keith, he ignored the fact that even Huxley did not accept the find in the Neander Valley, Germany, as the crucial link between humans and apes, and that Keith had reversed his earlier position concerning the transitional nature of the Neanderthal and Piltdown types. For a Canadian commentator—of whom Hill-Tout would have certainly been aware—who questioned the veracity of Piltdown as the 'missing link,' see W.R. Harris, 'The Ape Man,' *Annual Archæological Report, 1916*, 49-62.

[49] Hill-Tout, *Man and His Ancestors,* 124; and idem, 'The Phylogeny of Man,' 62-63.

[50] Hill-Tout, *Man and His Ancestors*, 124; and idem, 'Phylogeny of Man,' 71.

[51] Hill-Tout, *Man and His Ancestors*, 126.

Although Darwin's theory of evolution utilized organic metaphors which others often appropriated as contributions to theories of societal progress, there is some debate over whether or not Darwin personally advocated a teleological interpretation of development.[55] Hill-Tout was not as ambiguous. Just as he maintained that humanity had developed physiologically over great periods of time, Hill-Tout also argued for the coeval relationship of sociobiological development with advances in human morality and spirituality: '[a]ll history bears witness to this,' he stated, noting that there had 'clearly been the same gradual unfolding, the same slow growth and development of the moral side of our nature as of the physical.'[56] His belief in progress was so apparent that his close confidant, Alice Bodington, cautioned Hill-Tout, noting 'I do not find anything in your most interesting letter at variance with what I myself feel and hope, except perhaps that I have very little confidence in the indefinite improvement of the human race on this planet.'[57] However, such 'advances' were not evident in the attitude of the dominant society toward contemporary Natives, and Hill-Tout did not share Daniel Wilson's revulsion that ethnology was made a servant to 'the vulgarist prejudices' of humanity. The harsher racism of evolutionary biologists is explained through two theoretical considerations: first, the utilization of the tree metaphor modified the notion of psychic unity that had clearly been embraced by Wilson, and debatably evident even in the work of Lubbock and other classical evolutionists; and second, the discovery of fossil remains supposedly illustrating the 'missing link'—and the promise of many more—meant that Natives no longer were necessary as illustrative examples of previous stages of humanity. Thus, it is not surprising, as Carl Berger has noted, that interest in the 'Indian problem' as a political or scientific area of inquiry declined dramatically before the Royal Society of Canada in the 1880s and 1890s: it simply wasn't as necessary to draw upon the nineteenth-century Native in order to draw conclusions regarding the nature of prehistoric humanity.[58]

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[52] Hill-Tout, 'Phylogeny of Man,' 71.

[53] Cole, 'Origins of Canadian Anthropology,' 43; Stephan, *Idea of Race*, 84; and George W. Stocking Jr., 'The Persistence of Polygenist Thought in Post-Darwinian Anthropology,' in *Race, Culture, and Evolution: Essays in the History of Anthropology* (New York: The Free Press, 1968), 42-68.

[54] Stocking, 'The Persistence of Polygenist Thought,' 42-68, *passim*; and Stephan, *The Idea of Race*, 103-10. In proposing one prominent example, Stocking notes that while Daniel Brinton 'was formally a monogenist,' he 'took a thoroughly polygenist position' on some issues (54).

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[55] For contrasting interpretations of Darwin's commitment to teleology, see Bowler, *Invention of Progress*, 12-14; and Robert J. Richards, 'The Moral Foundations of the Idea of Evolutionary Progress: Darwin, Spencer, and the Neo-Darwinians,' in *The Philosophy of Biology*, ed. David L. Hull and Michael Ruse (Oxford: Oxford University Press, 1998), 592-609.

[56] Hill-Tout, *Man and His Ancestors*, 153.

[57] Alice Bodington to Charles Hill-Tout, 7 December 1893. Charles Hill-Tout Fonds, Special Collections and University Archives, University of British Columbia. Box 1, file 8. Emphasis in the original.

Hill-Tout's anthropological views should not be considered unique or even extreme within the context of his time. Indeed, most modern scholars have seen Hill-Tout as a moderate and even liberal figure. Ralph Maud, in his brief but seminal introduction to Hill-Tout's ethnology, argues that the anthropologist combined 'scientific objectivity ... with lofty sentiment to ennoble his subject matter.'[59] Even more favourably, others have seen him as the intellectual heir of Daniel Wilson,[60] or even as undertaking a parallel effort modelling the work of Franz Boas.[61] While these comparisons are clearly overstated, it is true that Hill-Tout did not carry his theoretical arguments on prehistoric humanity to practical extremes. As has been noted, Hill-Tout was a diligent 'collector' of Native life, whose enthusiasm at times modestly directed itself toward advocacy for aboriginal cultures. In 1915 Edward Sapir and Franz Boas were concerned with 'the renewed rigour with which the old more or less dead letter potlatch law was being applied' to Pacific coast Natives.[62] In response, Sapir and Boas orchestrated a letter-writing campaign among anthropologists of the Pacific northwest and Sapir successfully petitioned Hill-Tout to protest the unjust nature of the potlatch law to D.C. Scott, the Deputy Superintendent of Indian Affairs.[63] Moreover, toward the end of his career, Hill-Tout did not draw as large distinctions between the potentiality of

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[58] Carl Berger, *Honour and the Search for Influence: A History of the Royal Society of Canada* (Toronto: University of Toronto Press, 1996), 40. Of course, it should be noted that the dwindling of interest by the Royal Society in the 'Indian problem' was no doubt a function of larger concerns such as the signing of the numbered treaties and the 'successful' conclusion to the Riel rebellion.

[59] Ralph Maud, 'Introduction,' in *The Local Contribution of Charles Hill-Tout. Volume III: The Squamish and the Lillooet*, 4 vols. (Vancouver: Talonbooks, 1978), III: 11.

[60] Henry Epp and Leslie E. Sponsel, 'Major Personalities and Developments in Anthropology in Canada, 1860-1940,' paper presented to the Annual Meeting of the (continued...)

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[60](...continued)
Canadian Sociology and Anthropology Association, 23-26 August 1974; cited in McCardle, 'Life and Anthropological Works of Daniel Wilson,' 145.

[61] Wayne Suttles, 'The Ethnographic Significance of the Fort Langley Journals,' in *The Fort Langley Journals, 1827-30*, ed. Morag Maclachlan (Vancouver: University of British Columbia Press, 1998), 165.

[62] Edward Sapir to Franz Boas, 10 February 1915. Edward Sapir Correspondence, Canadian Museum of Civilization, Hull, PQ. Box 621, file 2.

[63] Edward Sapir to Franz Boas, 10 February 1915. Edward Sapir Correspondence, Canadian Museum of Civilization, Hull. Box 624, file 10. Other anthropologists who wrote letters included Boas, John Swanton of the Bureau of American Ethnology, Harlan I. Smith of the Ottawa Museum, and British Columbia specialists James Teit and C.F. Newcombe. All letters advocated noninterference with Native customs. See Douglas Cole and Ira Chaikin, *An Iron Hand Upon the People: The Law Against the Potlatch on the Northwest Coast* (Vancouver: Douglas & McIntyre, 1990), 101. The potlatch law remained in effect until 1951.

Native and non-natives as had been evident in *Man and His Ancestors*. Although he clearly saw Natives and other non-white racial groups as 'savages' and lower on the scale of civilization, he also noted that all racial groups shared fundamental abilities and capacities.[64] Because Euroamerican society had 'reached nearer the stars than less advanced peoples,' Hill-Tout argued, 'we are apt to imagine we are a higher race biologically [and] ... forget that we start unequally.'[65] Although the natural state of humanity was savagery, he continued, it lacked only 'the necessary impulse or stimulus' to reach the 'artificial condition' of civilization.[66] Expressing an ideology that was characteristic of the residential school experience, Hill-Tout held out hope that if 'the backward races' were given 'the same opportunities as we ourselves enjoy,' they would be capable of making 'their own characteristic contribution to the world's future progress.'[67]

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[64] See especially, Hill-Tout, 'Is There a Fundamental Difference in Racial Aptitudes and Capacities?,' 149-57.

[65] Hill-Tout, 'Is There a Fundamental Difference in Racial Aptitudes and Capacities?,' 151.

[66] Hill-Tout, 'Is There a Fundamental Difference in Racial Aptitudes and Capacities?,' 154-55.

[67] Hill-Tout, 'Is There a Fundamental Difference in Racial Aptitudes and Capacities?', 157. It is worth noting, however, that Hill-Tout argued that it was the Polynesian and Zulu races—two groups far removed from North America—who were '... man for man, probably [physically] superior to any European peoples today' (150).

The Vanishing Indian and Salvage Anthropology

The creation of various models of human advance and decline had profound influences on the concept of the 'vanishing Indian,' clearly one of the principal developments of late nineteenth-century anthropology and a vital concern for explaining the 'progress' of white Canadian society and the 'degeneration' of its aboriginal counterparts. Approaches that emphasized the unity of humanity either saw nineteenth-century aboriginals as a degraded representative of a previous advanced type modelled on western normative standards, or simply as an ancient relic that had been passed by in the unilinear advance of humanity. Likewise, the emergence of polyphyletic models of human development potentially placed Natives outside the whiggish line that led to western 'man,' and allowed for the possibility that aboriginal groups, like numerous prehistoric races, would ultimately become extinct. Whatever their theoretical proclivities, virtually all late nineteenth- and early twentieth-century anthropologists were united in believing that Canada's aboriginal population would inevitably vanish.

The belief that Natives were quickly disappearing from the North American landscape was an obvious catalyst to salvage anthropology in the last half of the nineteenth century. As Doug Cole notes, this 'realization' spurred a voracious appetite for the collection of Native artifacts and culture, particularly on the Northwest coast. So 'successful' were collectors that by the early twentieth century it was likely that the city of Washington contained more Northwest material than the state of Washington, and New York City had a greater number of British Columbian aboriginal artifacts than the province itself.[68] While Douglas Cole's *Captured Heritage* provides a thorough and insightful analysis of the 'scramble' for Native artifacts, the intellectual and cultural origins of salvage anthropology have been less fully explored. Indeed, the belief in the 'vanishing Indian' embodied such authority precisely because both 'scientific' models of human development and the popular image of the Indian conspired to 'prove' that the aboriginal population was doomed to extinction.

The last half of the nineteenth century constituted a revolution for aboriginal groups, particularly in the western provinces where socio-economic and political factors informally conspired to marginalise indigenous peoples.[69] By the 1870s it was increasingly clear that the Native population was diminishing in numbers, the buffalo hunt was in decline, resources were over-exploited and the fur trade—the principal conduit of aboriginal-settler relations—was less lucrative and provided for a diminished role for the aboriginal population. With the signing of the numbered treaties on the prairies, Natives were shuffled to reserves and lethargic attempts were made to introduce them to an agriculturally-based 'peasant' economy.[70] Such dramatic changes in Native societies had dramatic consequences for the way in which the 'Indian' was represented in colonial and Canadian cultural discourse. Contemporary scholars have argued that prior to the 1840s, nineteenth-century historians accorded Natives prominent roles and treated them with respect. Bruce Trigger, perhaps most notably, argues that the work of eighteenth-century Jesuit priest Pierre-François-Xavier de Charlevoix (1682-1761) presented a largely benevolent view of aboriginal peoples that emphasized their inherent rational abilities and dependence upon environmental (as opposed to racial) factors in the formation of their tribal character.[71] Trigger notes Charlevoix's influence on early nineteenth-century colonial historians such as George Hariot and William Smith who portrayed aboriginal people as economic and military allies and offered similar optimistic assessments of the inherent abilities of indigenous people.[72] This relatively

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[68] Douglas Cole, *Captured Heritage: The Scramble for Northwest Coast Artifacts* (Vancouver: University of British Columbia Press, 1995 [1985]), 286; Jacob Gruber, 'Ethnographic Salvage and the Shaping of Anthropology,' *American Anthropologist* 72, no. 6 (1970): 1289-99; Bruce G. Trigger, 'Archaeology and the Ethnographic Present,' *Anthropologica* 23, no. 1 (1981): 3-18; and Brian Dippie, *The Vanishing American: White Attitudes and U.S. Indian Policy* (Middleton, CN: Wesleyan University Press, 1982), 231-36.

[69] See Gerald Friesen, *The Canadian Prairies: A History* (Toronto: University of Toronto Press, 1984), chapter 7.

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[70] Sarah Carter, *Lost Harvests: Prairie Indian Reserve Farmers and Government Policy* (Montreal & Kingston: McGill-Queen's University Press, 1990); Friesen, *The Canadian Prairies*, chapter 7; and Katherine Pettipas, *Severing the Ties that Bind: Government Repression of Indigenous Religious Ceremonies on the Prairies* (Winnipeg: University of Manitoba Press, 1996), chapter 3.

[71] Bruce Trigger, 'The Historians' Indian: Native Americans in Canadian Historical Writing from Charlevoix to the Present,' *Canadian Historical Review* 67, no. 3 (1986): 316-18. More recently, anthropologist Ter Ellingson challenges the notion that Charlevoix presented benevolent images of aboriginal people, arguing instead that the 'two minds' of the Jesuit priest are represented in his *Journal of a Voyage to North-America* (1720-1722) and *History and General Description of New France* (1744), with the latter work repeatedly and exclusively using the term 'these savages ... as an epithet of condemnation.' See Ellingson, *The Myth of the Noble Savage*, 101-6.

[72] Trigger, 'The Historians' Indian,' 318; and Bruce G. Trigger, *Natives and*

(continued...)

benevolent image of Natives changed enormously in the last half of the century. In 1885 the Methodist missionary John Maclean noted this transition in the perception of the 'Indian': where '[f]ormerly the Indian was a hero—free, independent and wealthy—now he is inferior to the white man... .'[73] A half century later, Thomas McIlwraith, the University of Toronto anthropologist, in reinforcing Maclean's conclusions, emphasized that the 'Indian' existed predominantly within a clashing double imagery. In discussing the common stereotypes of aboriginal peoples, he noted the following:

> Depicted prominently in many types of literature, he [the Indian] appears in an extraordinary range of characterizations. He is described as 'clean-limbed', 'virile', 'brave', or as 'dirty', 'skulking', and 'cowardly'; the impression left by some books is that all Indians wore feathers, pursued bison on horseback, revelled in warfare and ultimately went to a happy hunting ground, whereas other volumes imply the universality of agricultural life and of permanent villages. Such contradictory generalizations are unjustified ... .[74]

Increasingly, as McIlwraith's notes indicate, aboriginal figures were relegated to

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[72](...continued)
Newcomers: Canada's "Heroic Age" Reconsidered (Montreal & Kingston: McGill-Queen's University Press, 1985), chapter 1. Robin Fisher argues that while fur traders and settlers shared some of the same impressions of Indians, the latter generally were more superficial, subjective and disparaging in their portrayal. The process of settlement in British Columbia, combined with the diminished role of the fur trade and of Native participation in the economy, began in earnest following the 1858 gold rush. *Contact and Conflict: Indian-European Relations in British Columbia, 1774-1890*, 2nd ed. (Vancouver: University of British Columbia Press, 1992 [1977]), chapter 4.

[73] John Maclean, 'The Half-Breed and Indian Insurrection,' *Canadian Methodist Magazine* 22, no. 2 (1885): 172.

[74] Thomas F. McIlwraith, 'Lectures 20-39 [lecture 29].' Box 8, file 17. Also see Thomas F. McIlwraith, 'Lectures 1-19 [lecture 19],' (Radio 3/2/28 ?). Thomas F. McIlwraith Papers, University of Toronto Archives. Box 8, file 16.

paradoxical representations: the Indian 'existed' as either a noble, heroic (even mythical) figure or, more commonly, was relegated to an ignoble status that emphasized Native savagery and sometimes did not even present clear distinctions between animal and human forms.[75]

While the Canadian West was viewed as harsh and uncompromising prior to the middle of the nineteenth century, in the decades which followed the prairie west and western 'Indian' were characterized by a romantic tradition.[76] William Francis Butler, author of travel accounts such at *The Great Lone Land* (1872) and *The Wild North Land* (1873) which praised the pristine beauty of the western landscape, was a principal proponent of romantic notions of the Indian. Firmly within the tradition of James Fenimore Cooper, whose works Butler had read as a boy, characters such as Red Cloud, 'the famous wandering Sioux,' emerge as heros. [77] In Butler's novel, Red Cloud's mastery of, and attachment to, the land contrasts to that of his non-native companions:

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[75] Michael C. Coleman argues that too little attention has been paid to the clashing double imagery of the nineteenth-century 'Indian'; see his *Presbyterian Missionary Attitudes toward American Indians, 1837-1893* (Jackson: University Press of Mississippi, 1985), 121.

[76] R. Doug Francis, *Images of the West: Changing Perceptions of the Prairies, 1690-1960* (Saskatoon: Western Producer Prairie Books, 1989); idem, 'Changing Images of the West,' *The Prairie West: Historical Readings*, ed. R. Douglas Francis and Howard Palmer (Edmonton: University of Alberta Press, 1985), 629-49; and Gerald Friesen, 'Three Generations of Fiction: an Introduction to Prairie Cultural History,' *The Prairie West: Historical Readings,* 650-60. As Ter Ellingson notes, there has always been a tendency to equate 'romanticism' with ennoblement in the literature on the noble savage. See Ellingson, *The Myth of the Noble Savage*, 171.

[77] Francis, *Images of the West*, 39.

'[a]lmost every part of this vast ocean of grass,' the narrator observes, '[was] thoroughly known... . Land once crossed by a red man is ever after living memory to him.' In caring for a wounded (and previously hostile) Assiniboine, the narrator notes that it was Red Cloud's 'own noble nature ... which had worked [a change] upon our prisoner and made him a staunch and firm friend.'[78] Two decades later, the Methodist missionary John McDougall expressed a similar ideal in his work. The story of White Buffalo, as told in McDougall's *Wa-Pee Moos-tooch*, describes the development of a virtuous, courageous boy into the head chief of the Cree. White Buffalo displays strong individuality, humility, instinctive knowledge of the wilderness, strength and courage.[79] Nagos—White Buffalo's bride—is 'gloriously beautiful, exquisite in form and radiant in feature;' in marrying White Buffalo she turns 'her head back on all her past [as] ... the daughters of Eve have done from the beginning.'[80] The pre-lapsarian imagery surrounding the land further enhances their noble status: '[a]nd now,' the narrator states shortly after the couple's marriage ceremony, 'the grasses and herbs were ripe and the tints were full, and the whole land on every side was gorgeous.'[81]

Coterminous with the romantic imagery of the noble Indian examples of the

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[78] William Francis Butler, *Red Cloud; a Tale of the Great Prairie* (London: Burns & Oats, 1882), 32, 148, 137.

[79] John McDougall, *'Wa-pee Moos-tooch' or 'White Buffalo;' the Hero of a Hundred Battles* (Toronto: n.p., 1898), 10, 50, 53, and 57.

[80] McDougall, *Wa-pee Moos-tooch*, 42-43, 175.

[81] McDougall, *Wa-pee Moos-tooch*, 177.

Indian as savage are readily found. A common theme running through the works of late nineteenth-century writers revolved around the tyranny of chiefs and medicine men. In Egerton Ryerson Young's novel, *Children of the Forest,* the noble Nabuno looks at the medicine men with dread, for they had caused her family to become separated and had brought upon the illness of her father.[82] The medicine men were 'a strange lot of fearful looking men' and fellow villagers shared Nabuno's revulsion towards them.[83] Ultimately (and predictably) relief to the newly-converted Indians was brought when the old conjurer who had cast the spell was forced to flee to the abode of the chief medicine man who was 'head of the whole cult, and by his extraordinary ability dominated the rest with despotic power.'[84] Likewise, with few exceptions, indigenous forms of worship such as Prairie Sun Dances or coastal potlaches were seen by nineteenth-century observers as detrimental to civilization and even, the harsher critics argued, barbaric and demonic.[85] In 1883 for instance, the Regina *Leader* introduced a story about a Sun Dance with the headline 'Frightful Cruelties at the Manufacture of Braves: A Sun Dance, Revolting Scenes;' likewise, the popular image of native spirituality in Ontario was influenced by articles such as the one in the Ottawa *Evening Journal* which asserted that

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[82] Young, *Children of the Forest* (New York: F.H. Revell, 1904), 15-19, 28.

[83] Young, *Children of the Forest*, 25, 49; quotation from page 49.

[84] Young, *Children of the Forest*, 213-14.

[85] Pettipas, *Severing the Ties that Bind*, chapter 4. Also see Cole and Chaikin, *An Iron Hand upon the People*, chapter 2.

Indians are '[d]ying from the practices of their heathen religion.'[86]

The relegation of the 'Indian' to paradoxical representations was central both to the creation of the myth of the vanishing Indian and to the onset of salvage ethnology. The popular and scientific 'Indian' were not unrelated, for the emergence of racial science had cemented racial stereotypes which frequently derived power and utility from contradictory images.[87] This informal conspiracy acted to deny aboriginal peoples effective participation in the dominant culture. Most obviously, the use of polar opposites served to remove the 'Indian' from the 'real world,' and, in Edward Said's well-worn phrase, 'orientalized' them far beyond the needs and experience of late Victorian society.[88] Representatives such as Red Cloud were the last of their race: as a reward for being a faithful companion, Red Cloud took the novel's Scottish narrator to a stream bed filled with gold. 'There it is in plenty—not in dust, but in stones and lumps—take it,' Red Cloud directed; '[a] white man without yellow stone is like an Indian who has no buffalo.'[89] As the anonymous narrator reflected on his good fortune, he suddenly 'saw the future, with its smoke of cities, its crowds chained to the great machine called civilization, pulling slowly along the well-beaten road.'[90] Of course, the Indian recognizes that he can not participate in the vision of his companion: While 'I, Red Cloud the Sioux, showed you the right trail,' he fatefully proclaims, '[I] could not follow it [myself]. We can not change our colours.'[91] After helping his companion load his gold, Red Cloud turned 'back from the shore of civilization into the great prairie sea.'[92] Such passages affirmed the Indian's lack of capacity for material progress since concepts of private property, resource utilization and monetary specie were increasingly the principal measures by which a society's achievement and stature were measured.[93] Moreover, the example of Red Cloud participated in a common late nineteenth-century racial myth concerning primitive peoples: the arrested development of aboriginals had left them with memory, but not reason, and thus they lacked the capacity to utilize logically the resources that the land offered.[94]

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[86] The Regina *Leader*, 26 July 1883, 1; Ottawa *Evening Journal*, 9 December 1896; cited in Pettipas, *Severing the Ties that Bind*, 101.

[87] Douglas A. Lorimer, 'Science and the Secularization of Victorian Images of Race,' in *Victorian Science in Context*, ed. Bernard Lightman (Chicago: University of Chicago Press, 1997), 213; and Ellingson, *The Myth of the Noble Savage*, xiii.

[88] Edward Said, *Orientalism*, rev. ed. (New York: Vintage Books, 1994 [1978]).

[89] Butler, *Red Cloud*, 315.

If the noble savage was increasingly rare by the end of the nineteenth century, its counter image established a place near the bottom of the evolutionary continuum, an equally unlikely participant in the march of Canadian progress and civilization. The Victorian 'Indian' possessed inherent racial flaws that inevitably led it toward its own destruction. For example, in Alexander Begg's *Dot it Down*—which Dick Harrison argues is one of the most sympathetic prairie accounts involving Natives in the nineteenth century—the drinking problems of Doc or Robert Harrican are presented as individual failings, while those involving 'Indians' are represented as cultural faults.[95] Likewise, the attitudes of non-native society toward war differed greatly from Indian conceptions: the narrator of Ballantyne's *Prairie Chief* notes that Anglo-Canadians 'detest[ed] war, [and] regarded it in ninety-nine cases out of a hundred as unnecessary,' while the Indian 'world [was] all too familiar with ... scenes [of slaughter].'[96] This proclivity toward destruction necessarily removed the Native from the development of the Canadian west in the last half of the nineteenth century, an era in which the region was increasingly represented as a peaceful and ordered environment.[97]

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[90] Butler, *Red Cloud*, 316.

[91] Butler, *Red Cloud*, 317.

[92] Butler, *Red Cloud*, 317.

[93] Frederick E. Hoxie, *A Final Promise: The Campaign to Assimilate the Indians, 1860-1920* (Lincoln: University of Nebraska Press, 1984), 19; and Herman Lebovics, 'The Uses of America in Locke's *Second Treatise of Government*,' *Journal of the History of Ideas* 47, no. 4 (1986): 567.

[94] Jahoda, *Images of Savages*, 154.

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[95] Alexander Begg, *"Dot it Down;" a Story of Life in the North-West* (Toronto: Hunter, Rose & Company, 1871), 17, 122, 186-87, 328. For example, in one scene in which the settlers seek to capture a Sioux and turn him over to American authorities, Begg writes: 'As Medicine Bottle was leaving the house, they [the settlers] rushed upon him and threw him to the ground, the settler applying at the same time a handkerchief to the nostrils of the fallen man, saturated with what was supposed to be chloroform, but which was nothing else than whiskey, taken by mistake from the wrong bottle. "*Wash-tee-do! Wash-tee-do!*" cried the savage, which in English means good! good!' (186). Also see Dick Harrison, *Unnamed Country: The Struggle for a Canadian Prairie Fiction* (Edmonton: University of Alberta Press, 1977), 62-63; Butler, *Red Cloud*, 86; Young, *Children of the Forest*, 237, 248; and Terry Goldie, *Fear and Temptation: The Image of the Indigene in Canadian, Australian, and New Zealand Literature* (Montreal & Kingston: McGill-Queen's University Press, 1993), 98-99.

[96] R.M. Ballantyne, *The Prairie Chief, a Tale* (Toronto: Musson, n.d.), 16; and Ralph Connor, *The Patrol of the Sun Dance Trail* (Toronto: Westminster, 1914), 193-95. In contrast to the 'ancient savage spirit' dedicated to war, Connor juxtaposes the national and imperial authority of the North West Mounted Police.

The polar opposites of the noble and unrestrained savage which aided in establishing the myth of the vanishing Indian neatly coalesced with contemporary anthropological thought. In a talk given before the Ottawa Field Naturalists Club in 1901, Robert Bell, acting director of the Geological Survey of Canada, noted that '[n]ature maintains a balance. No species goes on increasing indefinitely.'[98] Bell's comments were principally directed toward 'useful animals': birds, beasts, fishes, mollusks, and so on. However, Bell also explicitly drew upon prehistoric and contemporary examples: just as natural laws had dictated the extinction of 'the so-called cave dwellers of Europe,' they also pointed toward the rapid decline (although not total extinction) of the aboriginal population of North America.[99] Others drew similar conclusions utilizing different metaphors of human development. Charles Hill-Tout noted that the prehistoric record argued for the extinction of less developed races. During the Mousterian or Middle Paleolithic era (ca. 80,000-35,000 BCE), two distinct and unrelated races resided in Western Europe: the highly developed Cro-Magnon and the less developed Neanderthal. No sooner had the two appeared side-by-side when the Neanderthals disappeared. The primitive Neanderthal was, Hill-Tout argued, 'the lowest and most bestial type of man of which we have any knowledge,' and was an unworthy ancestor to the modern European. Further, he rejected suggestions that the Neanderthals had merely been driven out of Europe or that some type of racial intermixture between the two had taken place.[100] Rather, he held that 'the inferior race was speedily exterminated by the superior'; such occurrences had happened 'not infrequently ... in human history.'[101] The prehistoric descendants of the European therefore remained unblemished and it did not take too much imagination for his audience to perceive that something similar was occurring in early twentieth-century Canada. William Diller Matthew—an internationally renowned palaeontologist who received his undergraduate training at the University of New Brunswick before pursuing graduate studies at Columbia under Henry Fairfield Osborn and a career at the American Museum of Natural History—made similar arguments: in the old Pleistocene 'not one but several distinct races or species of man inhabited various parts of the Old World, and possibly penetrated to the New World. Of these races, only one, our modern species, has survived.' Matthew continued: the 'modern species branched out in its turn into a variety of distinct races,' and 'the white race, originating in Europe, [has spread] and replac[ed] the native races... .'[102]

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[97] Most notably see Doug Owram, *Promise of Eden: The Canadian Expansionist Movement and the Idea of the West, 1856-1900* (Toronto: University of Toronto Press, 1992 [1980]).

[98] Robert Bell, 'Extinction of Useful Animals in Modern Times,' [Ottawa Field Naturalists Club 1901], 1. Robert Bell Fonds, National Archives of Canada. Box 3, file 3.31.

[99] Bell, 'Extinction of Useful Animals in Modern Times,' 2-3. Robert Bell Fonds, National Archives of Canada. Box 3, file 3.31.

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[100] Hill-Tout, 'The Phylogeny of Man,' 61-62.

[101] Hill-Tout, 'The Phylogeny of Man,' 61.

The intersection of geology and anthropology likewise contributed to a belief that aboriginal people had a defined and limited life span. Beginning with the work of William Smith, a canal builder, geologist and author of *The Geological Map of England and Wales* (1815), efforts had been made to use archaeological remains in order to delineate strata within a geological time scale. The principle was relatively simple: archaeological fossils and artifacts that were identified with a certain period could also be used to identify the age of strata in other areas, even if the geological characteristics differed considerably. Central to the idea of index fossils was the premise that each species had a finite lifeline; once its range was established, it could be utilized to establish geological age in other areas and, in theory, continents. For example, if layers of shale and sandstone were separated by great distances, but contained the same index fossils, it was assumed that they had been laid down in the same geological period.[103] Moreover, the idea of index fossils was dependent upon a distinctly progressionist view of human prehistory and those who held alternate views were not as prone to adopt it. For example, John William Dawson's degenerationist arguments did not always affirm the methodology implicit within index fossils: anthropologists, he argued, were too ready 'to gather up and parade all that is discreditable and low in the condition and manners of the modern savage, so as to approximate him as nearly as possible to brutes; and having done this, to exhibit him as the existing representative of our prehistoric ancestors.'[104] However, Dawson's position was a minority one within an intellectual community dedicated to progressive models of development. Such a formula could take many different forms: prehistorians as diverse as Daniel Wilson and John Lubbock made explicit use of index fossils in order to explain what prehistoric humanity 'really' looked like to their readers. Wilson's parallel universe ordained that tools and other artifacts would develop in predictable and universal patterns, while Lubbock's developmental model went one step further and conflated parallel development into a single linear model. Similarly, J. Bernard Gilpin, an economic geologist and inspector for provincial mines, noted before the Nova Scotia Institute of Natural Science in 1873, that since the 'age of stone has swallowed every myth in its fabulous antiquity,' in order to establish 'the form and feature of our prehistoric man' it was necessary to 'draw upon his present descendant living now almost under the same circumstances as his ancestors.'[105] As

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[102] W.D. Matthew, *Outline and General Principles of the History of Life* (Berkeley: University of California Press, 1928; rpt.: New York: Arno Press, 1980), 230. For a useful informal biography of Matthew by his son-in-law, see Edwin H. Colbert, *William Diller Matthew, Paleontologist: The Splendid Drama Observed* (New York: Columbia University Press, 1992).

[103] This example and discussion of index fossils draws from Van Riper, *Men Among the Mammoths*, 49; William B.N. Berry, *Growth of a Prehistoric Time Scale*, 2nd ed. (San Francisco: W.H. Freeman and Company, 1987), 53-59; and Trigger, *A History of Archaeological Thought*, 96. As Van Riper notes, the idea of index fossils was also gaining currency in France at this time through the work of Georges Cuvier and Alexander Brogniart.

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[104] Dawson, *Fossil Men and Their Modern Representatives*, 68-69.

[105] J. Bernard Gilpin, 'On the Stone Age in Nova Scotia,' *Proceedings of the Nova Scotia Institute of Natural Science* 3 (1874): 223. On Gilpin, see John Connolly,

(continued...)

noted, index fossils were necessarily finite, and Gilpin argued that such observations of the ancient representatives must be made quickly, for '[s]uch is the fast fleeting type of our present Indian... .'[106]

The popular and scientific justification for the disappearance of Natives from Canadian society was so powerful that it is difficult to find examples that do not fit this theory.[107] Indeed, even as late as the 1930s, long after the Native population had begun to increase,[108] Marius Barbeau—the most famous Canadian folklorist of his day—argued that '[at] present the indications point convincingly to the extinction of the

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[105](...continued) 'Archaeology in Nova Scotia and New Brunswick Between 1863 and 1914 and its Relationship to the Development of North American Archaeology,' *Man in the Northwest* 13 (1977): 11-12.

[106] Gilpin, 'On the Stone Age in Nova Scotia,' 224.

[107] Goldie, *Fear and Temptation,* 153-54. Also see Young, *Children of the Forest*, 11-12; Daniel Francis, *Imaginary Indian*, chapter 2; R.G. Moyles and Doug Owram, *Imperial Dreams: British Views of Canada, 1880-1914* (Toronto: University of Toronto Press, 1988), chapter 7; Leslie Monkman, *A Native Heritage: Images of the Indian in English-Canadian Literature* (Toronto: University of Toronto Press, 1981), chapter 4; and Ronald Haycock, *The Image of the Indian: The Canadian Indian as a Subject and a Concept in a Sampling of the Popular Magazines Read in Canada, 1900-1970* (Waterloo, ON: Wilfrid Laurier University Press, 1971), part 1; and Marilyn McKay, 'Canadian Historical Murals 1895-1959: Material Progress, Morality and the 'Disappearance' of Native People,' *The Journal of Canadian Art History* 15, no. 1 (1992): 63-81.

[108] The population of native people in Canada fell marginally from roughly 108,500 in 1881 to 103,750 in 1915. The 1921 census recorded 110,814 registered Indians and by 1931 this number had increased to 122,911. See Francis, *The Imaginary Indian*, 53-54.

[Indian] race.'[109] Barbeau's contemporary, the anthropologist Diamond Jenness, concurred: he argued that the once vibrant tribes of the west coast, mirroring the experience of many other aboriginal groups, felt 'that their race is run and calmly, rather mournfully, await the end.'[110] Such perceptions had profound implications: within the emerging nationalism in the half-century following Confederation, Canadians found great utility in the marginalization of a previous people. David Boyle reflected this belief: '[t]he treatment of a newly-discovered country,' he maintained, 'or of a conquered country depends on the character of the people who are governed quite as much as on that of those who govern.'[111] As anthropologist James Clifford notes, it is necessary to question the scientific and moral authority of salvage ethnology, particularly when it serves—as in this case—such a powerful ideological purpose for the dominant culture.[112] In light of comments such as Boyle's, such scepticism seems essential.

The informal conspiracy of popular culture and scientific theory contributed to the widespread and long-lasting belief in the disappearance of North American aboriginals. While science continued to enforce the idea of the vanishing savage, the pattern of representation of the 'Indian' within popular culture shifted enormously with the widespread immigration into the west by American, Canadian and European settlers. Increasingly, Indians were seen as marginal and where they appear they occupy shallow and stereotypical roles as mere obstacles to the physical and moral authority of individuals and institutions such as Corporal Cameron and the North West Mounted Police.[113] This 'representation' prepared the way for a new generation of literature in which the Indian scarcely figured at all; instead, its heros were those settlers of Scandinavian, Germanic, Icelandic and other similar origins who built homes on the outer fringes of earlier settlement.[114] For example, the central figures in post-Great War novels set on the prairies became individuals such as Frederick Grove's Abe Spalding and (the non-Anglo-Saxon) Niels Lindstedt who create agrarian enterprises out of the 'wilderness.' This disregard for the Indian is paralleled by its neglect within official government discourse. The marginalization of aboriginal issues is, for example, clearly evident in the Annual Reports of the Indian agents. After 1913 D.C. Scott, deputy superintendent for the Department of Indian Affairs, removed the personal opinions of the agents from these reports and, between 1920 and 1929 when Scott left office, aboriginal people receded further into irrelevance as these reports remained virtually identical.[115]

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[109] Marius Barbeau, 'Our Indians—Their Disappearance,' *Queen's Quarterly* 38, no. 4 (1931): 707; and Thomas F. McIlwraith, 'Anthropology: memorandum [typescript],' 6. National Library of Canada, Ottawa.

[110] Diamond Jenness, *The Indians of Canada*, 5th ed. (Ottawa: National Museum of Canada, 1960 [1932]), 261. Also see McIlwraith, 'The Progress of Anthropology in Canada,' 150; and [Rowland B. Orr ?], 'Archaeology in the Province of Ontario,' *Annual Archæological Report, 1911 Including 1908-9-10* (Toronto: William Briggs, 1911), 8.

[111] Boyle, 'Aphorisms (nd).' DBP.

[112] James Clifford, 'On Ethnographic Allegory,' in *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus (Berkeley: University of California Press, 1986), 112-13.

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[113] See the example established in Ralph Connor's *Corporal Cameron of the Northwest Mounted Police, a Tale of the Macleod Trail* (New York: Hodder & Stoughton, 1912); and idem, *The Patrol of the Sun Dance Trail*.

[114] D. Pacey, *Frederick Philip Grove* (Toronto: Ryerson Press, 1970), 115.

Ironically, while the Indian ceased to play a significant role in the 'new realism' of post-war novelists such as Frederick Grove, Martha Ostenso and Robert Stead,[116] images of the Indian did not remove themselves completely from the imagination of non-native Canadian society. Hayden White argues that with the conquest of the wilderness and the wild man, images such as the Indian move from the fictional—or from the creation of complex symbols used as instruments of intracultural criticism—to the mythical, where elements of the wild man reside within each individual.[117] The progressive despatialization of the savage and its environment is accompanied by a compensatory process of psychic interiorization; thus, when the wilderness is conquered and the wild man eradicated, the inhabitants of so-called 'civilized' society internalize notions of the savage and, in turn, lament the triumph of technology and dream of the release of the lost child or noble savage.[118] Recently, Patricia Jasen has argued that late Victorian tourists in Ontario did not feel the need to have the Indian exist 'out there'; rather, it was enough to 'play Indian' while on, for example, a wilderness holiday.[119] The most famous example of one who 'played Indian' in the first decades of the twentieth century was, of course, Archie Belaney, better known as Grey Owl.[120] Born and bred as an Englishman, Belaney came to Canada in 1906 determined to become a wilderness man. After fighting in the Great War and in numerous drunken brawls in the logging camps of Northern Ontario, Belaney had, by 1930, married an Iroquois woman, dyed his hair and skin, and taken the name 'Grey Owl.' Belaney embodied what non-natives thought an Indian should look and act like, though Natives—to the concern of no one else—at once recognized that he was not of aboriginal descent. A series of short films showing Grey Owl 'taming' beaver, several popular books, an autobiography that endorsed the wilderness experience and lamented the progress of technology, and an ambitious lecture tour in North America and Great Britain made Grey Owl the most famous 'Indian' of his generation and an inspiration to individuals, organizations, and clubs across the Anglo-Canadian world. When he died in 1938 and his true identity was brought to light, the power of the myth of the wild man in Canadian society was revealed by the lack of outrage—or even concern—over the deception. Major J.A. Wood, the superintendent of Prince Albert Park, lamented Grey Owl's death, writing that 'I care not whether he was an Englishman, Irishman, Scotsman or Negro. He was a great man with a great mind, and with great objectives which he ever kept before him.'[121] The ideology of the savage had all but disappeared from the Canadian mind, replaced instead by a civilized counterpart that could be more readily accepted by the dominant culture.

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[115] Pamela White, 'Restructuring the Domestic Sphere—Prairie Indian Women on Reserves: Image, Ideology and State Policy, 1880-1930,' (unpublished Ph.D. dissertation, McGill University, 1987), 16. On Scott, see E. Brian Titley, *A Narrow Vision: Duncan Campbell Scott and the Administration of Indian Affairs in Canada* (Vancouver: University of British Columbia Press, 1986).

[116] For a discussion on the 'realism' of these novelists, see Harrison, *Unnamed Country*, chapter 4 and *passim*.

[117] Hayden White, 'The Forms of Wilderness,' in *Tropics of Discourse: Essays in Cultural Criticism* (Baltimore: The Johns Hopkins University Press, 1978), 153-54. Patricia Jasen, in *Wild Things: Nature, Culture, and Tourism in Ontario, 1790-1914* (Toronto: University of Toronto Press, 1995), makes a similar argument in noting the rise of wilderness tourism in Ontario.

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[118] White, 'The Forms of Wilderness,' 153-54.

[119] Jasen, *Wild Things: Nature, Culture, and Tourism in Ontario*, 19.

[120] For larger discussions of Grey Owl, see Donald Smith, *From the Land of Shadows: The Making of Grey Owl* (Saskatoon: Western Producer Prairie Books, 1990); and Francis, *The Imaginary Indian*, 131-41.

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[121] Lovat Dickson, ed., *The Green Leaf: A Tribute to Grey Owl* (London: Lovat Dickson Ltd., 1938), 30; cited in Francis, *The Imaginary Indian*, 138.

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Reasoning Beyond Savagery: Expeditions, Institutions and the Critique of Evolutionary Anthropology

> For years the voice of the anthropologist has been a voice crying in the wilderness, and few have heard him; in fact, to many scientists he has been regarded as a little queer, perhaps almost as queer as the primitive people whom he studies. The reason for this is not difficutl [sic] to find. It is true that the highest study of mankind is man, but from the earliest times there have been differences of opinion as to what constituted man... .
>
> Thomas F. McIlwraith[1]

Writing to Franz Boas in 1895, George Mercer Dawson, the newly appointed director of the Geological Survey of Canada, told of 'a remarkable flathead skull' that had been discovered by Charles Hill-Tout in the Great Fraser midden the previous Spring. Although he wondered if 'Mr. Tout perhaps attaches more importance to it than it deserves,' Dawson clearly thought the skull of some value, for he hoped Hill-Tout would eventually present it to the Geological Survey and invited Boas to prepare a paper on it for the Royal Society of Canada.[2] This particular flathead cranium operated as a multivalent symbol on several levels. The nationalistic Dawson had earlier 'regretted that we ... have been able to accomplish so little' in collecting ethnographic material beyond three small museums, and was 'curious to secure ... [and] preserve all we can bearing on the prehistoric races of the Dominion... .'[3] Perhaps more telling, the flathead crania also operated as a site upon which contradictory interpretations of prehistory could be advanced. In his paper to the Royal Society, Hill-Tout contended that the prehistoric crania bore little resemblance to contemporary Native groups, a conclusion that fit neatly into his belief that various branches of now 'antecedent and forgotten' tribes had once inhabited North America.[4] After examining the skull, Franz Boas drew a much different conclusion. In a brief reply to Hill-Tout's paper, Boas noted that 'the lower portion of the forehead shows clearly that ... the skull had been deformed in the same manner as is practised by the present Indians of southeastern Vancouver Island,

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[1] Thomas F. McIlwraith, 'Lectures 20-39 [lecture 25].' Thomas F. McIlwraith Papers (TFMP), University of Toronto Archives. Box 8, file 17.

[2] George Mercer Dawson to Franz Boas, 28 October 1895; 11 November 1895; 14 February 1896; 7 March 1896; and 24 March 1896. Boas Professional Papers (BPP), American Philosophical Society, Philadelphia.

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[3] George Mercer Dawson to Franz Boas, 28 July 1886. BPP. On Dawson's nationalism and how it affected his tenure at the Geological Survey, see Gail Avrith-Wakeam, 'George Dawson, Franz Boas and the Origins of Professional Anthropology in Canada,' *Scientia Canadensis* 17, no. 1-2 (1994): 185-203. Robert Bell of the Geological Survey of Canada also expressed frustration at the failure of government officials to establish a long-term vision, noting in a letter to Franz Boas that '[p]oliticans in Canada don't care for science enough to do anything purely for its own sake ... .' Robert Bell to Franz Boas, 15 May 1886. BPP. This was a long-standing position and it is hardly surprising that the colonial Canadian government was willing to support scientific ventures if they offered the promise of economic gain. Writing to Robert Bell in 1865, William Logan noted that 'I find there is to be a celebration in Paris in 1867. As it is very likely the Canadian government ... [will] suddenly resolve to send a contribution, I should like you to be on the look out for [such?] specimens of our economic character... .' See William Logan to Robert Bell, 4 May 1865; 15 April 1865; and14 September 1866. William Logan Correspondence, Rare Books and Special Collections, McGill University. Box 1.

[4] Hill-Tout, 'Later Prehistoric Man in British Columbia,' 114.

Puget Sound and [the] Fraser River.'[5] In contrast to the conclusions of Hill-Tout, Boas argued that the flathead cranium was contiguous with that of contemporary Native peoples and was not a forgotten link of earlier humanity.

The dispute between Hill-Tout and Boas over the prehistory of this skull reflected some of the changing and contradictory views of anthropology at the beginning of the twentieth century. That each would draw dramatically different conclusions from this prehistoric relic was not surprising. Hill-Tout, despite his appropriation of a professional title, was largely self-taught and spent his formative years immersed in an informal post-Darwinian evolutionary milieu. Boas' intellectual path was much different. After receiving his Ph.D. for a study on the colour of seawater, he embarked upon an indefatigable journey that eventually saw him become the most influential anthropologist of the early twentieth century and a harsh critic of the evolutionary methodology. Just as anthropology moved from its nineteenth-century evolutionary presuppositions toward a culture-based model, the institutional structures governing anthropology in Canada were also in a state of flux. Prior to the formation of the anthropological division of the Geological Survey, the study of anthropology in Canada had been largely unsystematic, with some professional anthropologists associated with universities or associations, while other gentleman scholars operated without institutional support. This situation changed dramatically in the first decades of the twentieth century. The first significant institutional development was the formation of the anthropological division of the Geological Survey of Canada in 1910, an organization that had its intellectual roots in both American and British schools of anthropology. Harland I. Smith, the Geological Survey of Canada's first archaeologist, represents the transition from a unilinear vision of human development to a thoroughly Boasian model. Second, professional anthropology became institutionalized within the Canadian university system, beginning with the appointment of Thomas McIlwraith at the University of Toronto in 1925. Although both the Americanist tradition and British social anthropology had different trajectories and claimed independence from one another, there were also important similarities. In both the Geological Survey of Canada and Toronto, the critique of evolutionary anthropology is striking in its dissociation from earlier forms of anthropological theory.

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[5] Franz Boas, 'Remarks on a Skull From British Columbia,' *Transactions of the Royal Society of Canada* 1 (1895): 122. For an overview of the differences of opinion between Hill-Tout and Boas, see Banks, 'Comparative Biographies of Two British Columbian Anthropologists,' chapter 9.

Franz Boas and the Idea of Progress

Trained at universities in Heidelberg, Bonn and Kiel, Franz Boas was awarded his doctorate in physics with a minor in geography at the last institution.[6] Following a year as a 'volunteer' in the German army and unsuccessful attempts at securing a permanent profession, Boas left for Baffinland in 1883 on a year-long study of 'Eskimo' culture. This trip profoundly affected his career path and intellectual framework. Although his conversion from physics to ethnology was not sudden, thereafter Boas increasingly dedicated his professional energies toward ethnology and anthropology. This career path, as his most recent biographer emphasizes, was marked by uncertainty

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[6] Despite a vast literature on Boas, there is no adequate biography that covers the entirety of Boas' life and career. For aspects of his career see George W. Stocking Jr., *Race, Culture, and Evolution: Essays in the History of Anthropology* (New York: Free Press, 1968), especially chapters 7-9; Ronald P. Rohner and Evelyn C. Rohner, 'Franz Boas and the Development of North American Ethnology and Ethnography,' in *The* (continued...)

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[6](...continued) *Ethnography of Franz Boas: Letters and Diaries of Franz Boas Written on the Northwest Coast From 1886 to 1931*, ed. Ronald P. Rohner (Chicago: University of Chicago Press, 1969): xiii-xxx; George W. Stocking Jr., 'The Basic Assumptions of Boasian Anthropology,' in *The Shaping of American Anthropology, 1883-1911: A Franz Boas Reader*, ed. George W. Stocking Jr. (New York: Basic Books: 1974): 1-20; Regna Darnell, 'Franz Boas and the Development of Physical Anthropology in North America,' *Canadian Journal of Anthropology* 3, no. 1 (1982): 101-12; Marshall Hyatt, *Franz Boas—Social Activist: The Dynamics of Ethnicity* (New York: Greenwood Press, 1990); Richard Handler, 'Boasian Anthropology and the Critique of American Culture,' *American Quarterly* 42, no. 2 (1990): 252-73; George W. Stocking Jr., *The Ethnographer's Magic and Other Essays in the History of Anthropology* (Madison: University of Wisconsin Press, 1992), especially chapters 2-4; and Vernon J. Williams Jr., *Rethinking Race: Franz Boas and His Contemporaries* (Lexington: The University Press of Kentucky, 1996), especially chapters 1-2. The absence of an adequate Boaz biography is alleviated somewhat by the posthumous publication of Douglas Cole, *Franz Boas: The Early Years, 1858-1906* (Vancouver: Douglas & McIntyre, 1999). Professor Cole had originally intended to write a two-volume work and his research notes have been deposited at the British Columbia Provincial Archives in Victoria. On Cole's significant legacy to the writing of Northwest anthropology, see Wendy Wickwire, '"The Quite Impossible Task": Douglas Cole and the Ecumenical Challenge of British Columbia's Cultural History,' *BC Studies* no. 125-126 (Spring/Summer 2000): 5-32; and Regna Darnell, 'The Pivotal Role of the Northwest Coast in the History of Americanist Anthropology,' *BC Studies* no. 125-126 (Spring/Summer 2000): 33-52.

and necessitated a trans-Atlantic journey in the hope of possible employment.[7] Contract work both in the field and for the journal *Science* followed before Boas secured permanent employment at newly-founded Clark University in 1889. Although Boas supervised A.F. Chamberlain, the first North American-trained Ph.D. in anthropology, his tenure at Clark was a brief affair: after only three years at Worcester, Boas and other professors who were disenchanted with the president, G. Stanley Hall, led 'the hegira' of 1892 in which two-thirds of the faculty and some 70 percent of the students departed.[8]

Following his short and unsatisfying tenure at Clark, Boas was hired to assist the Harvard archaeologist F.W. Putnam in the anthropology department of the Chicago World's Fair in 1893. Besides providing Boas with temporary (and, he hoped, permanent) employment, the exposition illustrated something of late nineteenth-century presuppositions of the nature and development of prehistoric and American humanity. The 'general scheme of the Fair,' as an internal memo explained, was 'to show a "Century of Progress, with the contributions of pure and applied science to industrial development during the last one hundred years" as the main theme.'[9] As Putnam and Boas realized, the 'virtual history' of the anthropological display would necessarily differ from that of the other sciences. However, like all things concerned with the Columbian Exposition, its had ambitious aims: while 'this story [anthropology] cannot be told in terms of centuries, ... it can have as its theme the development and growth of physical man, the formations of races, the effects of race crossing and environment, and the relation of all this to the fields of Biology, Anatomy, Genetics and Eugenics, Medicine, Public Heath, Child Development and Psychological investigations.' This pursuit of human progress was to be achieved under two separate plans: first, by illustrating the world-wide development of humanity through the 'restorations of fossil man ... from Taungs to modern races'; and second, and perhaps more revealing, by illustrating the development of human culture on American soil. Putnam and his protégée envisioned a display in which 'the visitor would go from the lowest [the Eskimo] to the highest [the Maya] of American cultures, although not in chronological order.'[10] The virtual order of human progress was easily apparent: the editor of the *American Antiquarian* noted that in addition to an 'assembly of Indians,' a 'splendid collection of historic and prehistoric relics have been gathered,' so that visitors would be able to look at 'Pre-Columbia America for the first time.'[11]

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[7] Cole, *Franz Boas: The Early Years*, chapters 4-6.

[8] For an account of this mass exodus, see Cole, *Franz Boas: The Early Years*, chapter 8.

[9] 'Chicago World's Fair. Tentative Plan For Anthropological Section of the Chicago World's Fair.' BPP.

As the example of the Chicago Exposition illustrates, Boas was not immune to the intellectual currents that had culminated in unilinear evolution. George Stocking argues that despite the personal and societal disillusionment that emerged as a result of the Great War, in the 1920s Boas still retained a residual belief in progress 'in the development of invention and knowledge' and even 'in ethical conduct, based on the recognition of larger groups which participate in the rights enjoyed by members of the closed society, and on increasing social control.'[12] Similarly, Boas never entirely freed himself from racial assumptions.[13] Nevertheless, by the turn of the century Boas had become the principal critic of sociocultural evolutionism, and had begun advocating an anthropological approach that celebrated cultural relativism. Boas' studies, beginning in Baffinland and then continuing along the Northwest coast, led him to ridicule the comparative method of the classical evolutionists who projected race and culture on to a single evolutionary model that led predictably toward contemporary western societies.

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[10] 'Chicago World's Fair.' BPP.

[11] [Stephen D. Peet], 'The Old and the New at the World's Fair,' *The American Antiquarian and Oriental Journal* 15, no. 4 (1893): 248.

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[12] Stocking, 'Rousseau Redux,' 72; quotes are from Franz Boas, *Anthropology and Modern Life* (New York: Dover Publications, 1962 [1928]), 217, 227-28. For Boaz's disillusionment emerging from the War see, *Anthropology and Modern Life*, 100-1; and George W. Stocking, Jr., 'Anthropology as *Kulturkampf*: Science and Politics in the Career of Franz Boas,' in *The Ethnographer's Magic and Other Essays in the History of Anthropology* (Madison: University of Wisconsin Press, 1992), 102-6.

[13] See Vernon J. Williams Jr., *Rethinking Race: Franz Boas and His Contemporaries* (Lexington: University of Kentucky Press, 1996), especially chapters 1-2. Although Boas obviously should not be implicated in the emerging eugenics agenda of the 1920s, he initially directed his executors to deliver all his anthropometric data to the Eugenics Record Office at Cold Spring Harbor, New York. This bequest was modified in 1930 with the prospect of establishing a physical anthropology department at Columbia. See Franz Boas to Charles B. Davenport, 23 May 1924; 3 April 1929; 7 January 1930; and 9 January 1930. BPP. For his critique of the eugenics movement, see Franz Boas, *Anthropology and Modern Life* (New York: Dover Publications, 1986 [1928]), chapter 5.

Figures as divergent as his former teacher Adolf Bastian and the American racial evolutionist Daniel Brinton were equally guilty of propagating the notion that 'human society has grown and developed everywhere in such a manner that its forms, its opinions and its actions have many fundamental traits in common.'[14] Boas rejected this 'modern view' that argued for some measure of common origins and the existence of universal laws of development based upon either external or internal factors. Instead, Boas envisioned a three-stage anthropological plan: first, to explore in detail the customs and traits of a single tribe; second, to investigate neighbouring tribes in a small geographical area; and finally, to look for similarities between those cultures, and then to aim to explain how these traits developed in each area.[15] In propagating this approach he was immensely successful, particularly at universities such as Berkeley, Pennsylvania and Chicago.[16] In Canada, the appointment of Edward Sapir, perhaps Boas' most brilliant student, as head of the anthropological division of the Geological Survey, has received much attention.[17] However, Sapir's tenure was relatively short and unhappy

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[14] Franz Boas, 'The Limitations of the Comparative Method of Anthropology,' in *Race, Language and Culture* (New York: The Free Press, 1966 [1940]), 270. This paper was originally read at the American Association for the Advancement of Science in Buffalo, New York and was first published in *Science* 4 (1896): 901-8.

[15] Rohner and Rohner, 'Introduction,' xxi-xxii.

[16] See Darnell, *And Along Came Boas*, chapter 9.

[17] See Regna Darnell, *Edward Sapir: Linguist, Anthropologist, Humanist* (Berkeley: University of California Press, 1990); Stephen O. Murray, 'The Canadian "Winter" of Edward Sapir,' *Historiographia Linguistica* 8, no. 1 (1981): 63-68; and

(continued...)

and, as Richard Preston argues, his Ottawa years saw a shift from a Boasian outlook toward 'psychiatric science.'[18] More lasting and utterly Boasian in character was the Canadian experience of Harland I. Smith.

The Evolution of Harlan I. Smith: From Unilinear Evolution to Boasian Diffusion

Born in East Saginaw, Michigan in 1872, Harlan Ingersoll Smith acquired a youthful enthusiasm for the study of the prehistoric past as a result of the many evidences of the former indigenous inhabitants that were scattered over the fields near his family home.[19] Smith's informal interest led to professional field work when he was hired by the Harvard archaeologist F.W. Putnam in 1891 to assist Dr. Charles Metz at the Stubbs mound in southwestern Ohio and later as an assistant in the Anthropological Department of the World's Columbian Exposition in Chicago.[20] The closing of the

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[17](...continued)
Richard Preston, 'Reflections on Sapir's Anthropology in Canada,' *Canadian Review of Sociology and Anthropology* 17, no. 4 (1980): 367-75;

[18] Preston, 'Reflections on Sapir's Anthropology,'367-75.

[19] For biographical detail on Harlan Smith see W.J. Wintemberg, 'Harlan Ingersoll Smith,' *American Antiquity* 6, no. 1 (1940): 63-64; Douglas Leechman, 'Harlan Ingersoll Smith, 1872-1940,' *Canadian Field Naturalist* 56 (1942): 114; and Ian Dyck, 'Toward a History of Archaeology in the National Museum of Canada: The Contributions of Harlan I. Smith and Douglas Leechman, 1911-1950,' in *Bringing Back the Past: Historical Perspectives on Canadian Archaeology*, ed. Pamela Jane Smith and Donald Mitchell (Hull: Canadian Museum of Civilization, 1998), 115-26.

[20] On Smith's involvement in the Stubbs earth work see John Robert White, 'The Stubbs Earthwork: Serpent Effigy or Simple Embankment,' *North American*
(continued...)

Chicago Exposition left Smith without paid employment in archaeology. Following the Exposition, Smith had returned to the family business in Saginaw (Harlan P. Smith, Law, Real Estate and Loans), where, as he lamented to Boas, '[m]y parents will now let me follow my [anthropological] work if I do so independently and earn my way.'[21] Such a situation had little permanent appeal, and Smith sought Boas' advice on where he could 'get in [to] some institution to work in anthropology and where I could also do college work at the same time... .'[22] Although Smith did not return to college—his only degree was an honourary Master of Arts degree in 1930 from the University of Michigan where he had been a student in 1891-1892—his association with Putnam proved fruitful: in 1895 on the recommendation of Putnam, Smith joined the American Museum of Natural History in New York where he participated in various curatorial and anthropological ventures, including a position as archaeologist on the Jesup North Pacific Expedition in 1897, 1898 and 1899. In 1911 Smith made his final career move, becoming the archaeologist in the newly-created Division of Anthropology of the Geological Survey of Canada, a position he held until his retirement in 1937.

Smith's appointment to Ottawa proved to be personally and professionally rewarding. In contrast to Edward Sapir's personal 'Canadian Winter,' Smith's

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[20](...continued)
Archaeologist 17, no. 3 (1996): 203-37.

[21] Harlan I. Smith to Franz Boas, 28 April 1894. BPP.

[22] Harlan I. Smith to Franz Boas, 5 April 1894. BPP.

correspondence revealed his enthusiasm at the Ottawa appointment: 'We are delighted with everything here. It seems too good to be true—a dream—in some respects a glimpse of my childhood—in others the view of a theatre representing what I read or might have read say of 200 years ago.'[23] His professional career likewise seemed promising in Canada. 'From all I can see,' he wrote to Boas, 'I will be allowed to plan my work [and] do it my own way[,] [and] will have all the funds I want. So I expect everything scientifically that I desire.'[24] This enthusiasm proved to be wildly optimistic: even following the Great War the anthropological division of the Geological Survey struggled to fund the number of projects and field workers that it had in the first three years of its existence.[25] Nevertheless, the contrast with his tenure in New York was stark, for Smith and his wife Helena had come to regret 'the years we lost' in 'uncivilized, savage' New York.[26] Those years had been so bleak that he thought of 'my long sixteen years in New York,' as Smith remarked to Boas on another occasion, as something akin to 'a prison sentence' from which he and his family had happily sought freedom.[27] Indeed, Smith's comfort in Ottawa was so complete that he even joined the local YMCA in spite of his hatred of Christianity.[28]

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[23] Harlan I. Smith to Franz Boas, 18 June 1911. BPP. On Sapir's frustrations with his Ottawa life, see Sapir to Franz Boas, 25 August 1920; 3 September 1920; 19 May 1924; 22 May 1924; 2 October 1924; and 13 April 1925. BPP; Murray, 'The "Canadian Winter" of Edward Sapir,' 63-68; Darnell, *Edward Sapir*, 132-37; and Diamond Jenness to Charles Marius Barbeau, 21 July 1925. Marius Barbeau Correspondence, Canadian Museum of Civilization. Box 206, file 28.

[24] Harlan I. Smith to Franz Boas, 18 June 1911. BPP.

[25] Barnett Richling, 'Archaeology, Ethnology and Canada's Public Purse 1910-1921,' in *Bringing Back the Past: Historical Perspectives on Canadian Archaeology*, ed. Pamela Jane Smith and Donald Mitchell (Hull: Canadian Museum of Civilization, 1998), 103-14.

[26] Harlan I. Smith to Franz Boas, 27 September 1915 and 11 August 1918. BPP.

Harlan Smith's longest, happiest and most fruitful professional association was centred in Ottawa. While his research was located in Canada from quite literally one coast to another, Smith's intellectual heritage lay in the United States. His earliest archaeological experiences had come through the patronage of F.W. Putnam, beginning with the Stubbs mound and continuing through the Chicago Exposition and his appointment at the Natural History Museum in New York where Putnam initially paid a portion of the young archaeologist's salary himself.[29] The promotion of individuals such as Smith was characteristic of Putnam, who had influence in several of the major centres of anthropological research such as Harvard, New York, Chicago and Berkeley, and actively sought to place subordinates in professional positions.[30] When Putnam died in 1915, Smith, recognizing this past influence, wrote to Boas that the Harvard professor 'had a great effect on my life, perhaps no one influenced it more, because if it had not been for him I probably would not have gotten into anthropological work or the east.'[31]

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[27] Harlan I. Smith to Franz Boas, 17 April 1912. BPP.

[28] Harlan I. Smith to Franz Boas, 21 May 1913. BPP.

[29] Cole, *Franz Boas: The Early Years*, 186.

[30] Darnell, *And Along Came Boas*, 118-23; and Cole, *Franz Boas: The Early Years*, 176-77.

Smith's indebtedness to Putnam was very much linked to another formative influence in his professional career, Franz Boas. Much as he had for Smith, Putnam had been influential in helping establish Boas' early career. Following his abortive experience at Clark University, which had ended with his resignation in 1892, Boas had found employment through Putnam's patronage, first temporarily at the Chicago Exposition, and then more permanently in New York at the American Museum of Natural History and, after 1906, at Columbia University.[32] Smith's ties to Boas were strengthened when he participated in the Boas-driven Jesup North Pacific Expedition that sought to extend North American anthropology beyond the scope of the continent's Native population. Thus, although their background and training differed considerably, Smith and Boas had shared much through their professional association in Chicago and New York and, more indirectly, through the establishment of the Boas nexus in Ottawa. Indeed, Smith delayed accepting the post at Ottawa until he had sufficient opportunity to discuss the matter with Boas.[33] Smith's development as a prehistorian thus owed a debt to both Putnam and Boas: this intellectual heritage can be most clearly observed in his

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[31] Harlan I. Smith to Franz Boas, 27 September 1915. BPP.

[32] Darnell, *And Along Came Boas*, 99; and Cole, *Franz Boas: The Early Years*, chapters 8-9.

[33] Harlan I. Smith to Edward Sapir, 2 March 1911. Edward Sapir Correspondence, Canadian Museum of Civilization, Hull. Box 633, file 40.

'evolution' from a position that asserted the late nineteenth-century ideal of evolutionary anthropology to one which, in its more mature form, emphasized the detailed examination of cultural areas and the diffusion of information from one locale to another.

Smith began his career as a young, largely untrained, assistant to a Harvard archaeologist and, given this relationship, it is hardly surprising that his anthropological views revealed an obvious commitment to the evolutionary model of humanity advocated by his patron. The material collection of Division M (anthropology) at Chicago was housed in a newly-constructed building at the edge of Jackson Park. This large building (415 by 225 feet) was adorned, as Smith noted in his correspondence to the *American Antiquarian*, with the 'very suggestive motto, "Man and His Works"' and its contents were to be arranged with the purpose of 'illustrat[ing] the progress of man and civilization on this hemisphere.'[34] There is little doubt that the 'virtual witnessing' of the display was intended to illustrate the unicultural advance of civilization. Smith noted that

> [a]rrangements are being made with the several States to place their historical exhibits under this department [anthropology], as it is thought by Prof. Putnam that if these [prehistoric] relics of the past are placed in their relative positions ... they will have a much greater educational value, and visitors will then be able to draw important object lessons of the geography and history of the States as

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[34] Harlan I. Smith, 'Man and His Works,' *American Antiquarian and Oriental Journal* 15, no. 1 (1893): 115.

> individuals and also as a part of the whole country much better than if the historical specimens were isolated in the State buildings.[35]

The apologetic purpose of the display was overt: '[f]rom the first to the last the exhibits of this department will be arranged and grouped to teach a lesson; to show the advancement or evolution of man.' The consuming public would thus be exposed to 'the real uses of anthropology as a practical study' and the Exposition would 'do much to fully establish ... [anthropology] in the educational institutions of this country.'[36]

Although its aims were lofty, the success of the anthropological display at Chicago was mixed at best. The construction of Putnam's new building lagged, and it was built on the edge of the fair grounds where it struggled to compete with G.W.G. Ferris' 250-foot-high wheel on Cairo Street and the medley of ethnological sideshows crowded underneath its shadow that included living representatives of some of the world's most 'exotic' cultures.[37] To the Exposition's 27.5 million visitors, the anthropological display did not prove to be the most discussed. A more fruitful legacy was the transfer of the Division M material to the newly-formed Field Columbian

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[35] Harlan I. Smith, 'Antiquity at the World's Fair,' *American Antiquarian and Oriental Journal* 14, no. 5 (1892): 291-92.

[36] Smith, 'Man and His Works,' 117; and Lee D. Baker, *From Savage to Negro: Anthropology and the Construction of Race, 1986-1954* (Berkeley: University of California Press, 1998), 51.

[37] Cole, *Franz Boas: The Early Years*, 154, 156; and E.A. Heaman, *The Inglorious Arts of Peace: Exhibitions in Canadian Society during the Nineteenth Century* (Toronto: University of Toronto Press, 1999), 250-51.

Museum following the close of the fair. However, even the establishment of this new research and educational facility was marred by conflict between Putnam and Frederick Starr, the University of Chicago's newly-appointed anthropologist. Rather than subordinate himself to Putnam, Starr encouraged the formation of the Walker Museum on the university campus, an institution more under his control, that opened in 1894.[38]

Despite its limitations, the 1893 anthropological exhibit functioned as an illustration of the supposed evolutionary nature of North American civilization, culminating in the self-referential example of the late nineteenth-century United States. Although obviously subordinate to the practical and theoretical direction of F.W. Putnam, Harlan Smith was an active participant in the creation of a 'virtual history' that celebrated the achievements of his race and nation. This was not his lasting legacy. Smith's transition from his Chicago evolutionism to Boasian culturalism can be seen as early as the late 1890s with his involvement in the Jesup North Pacific Expedition.

Smith and Boas had become friends and colleagues at the Museum of Natural History in New York, in spite of the fact that Boas thought Smith had 'many gaps' in his knowledge and that his questions were 'unbelievably simple.'[39] Boas' early assessment proved adroit, and scholars of American anthropology have noted that Smith's contribution to the study of prehistory was marked by their simplicity and an overly descriptive style.[40] Nevertheless, Boas found Smith to be a pleasant companion and able collector, and the latter's Jesup findings did prove valuable for Boas' own research.[41] Indeed, beyond initiating Smith into a more thorough Boasian approach, the Jesup expedition helped establish his reputation as an archaeologist of some stature.[42] Years later, Boas recognised Smith's methodological and scholarly development and praised him, noting on one occasion that 'I have sympathy with it [the popularization of anthropology] as long as it is done in an honest way, as you do it... .'[43]

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[38] Cole, *Franz Boas: The Early Years*, 156-57; and Darnell, *And Along Came Boas*, 111.

[39] Cited in Cole, *Franz Boas: The Early Years*, 192.

The Jesup North Pacific Expedition was the brainchild of Boas, then the assistant curator of the American Museum of Natural History, and bankrolled by Morris K. Jesup, a wealthy financier and philanthropist.[44] While both Jesup and the popular press thought

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[40] Ellen W. Robinson, 'Harlan I. Smith, Boas and the Salish: Unweaving Archaeological Hypotheses,' *Northwest Anthropological Research Notes* 10, no. 2 (1976): 186.

[41] Franz Boas, 'Untitled Lecture, (February 1898),' 17; cited in Cole, *Franz Boas: The Early Years*, 194; and Ellen W. Robinson, 'Harlan I. Smith, Boas and the Salish,' 185-96.

[42] Stanley A. Freed, Ruth S. Freed, and Laila Williamson, 'Capitalist Philanthropy and Russian Revolutionaries: The Jesup North Pacific Expedition (1897-1902),' *American Anthropology* 90, no. 1 (1988): 12. Freed, Freed and Williamson mistakenly identify Smith as 'Harlan T. Smith.'

[43] Franz Boas to Harlan I. Smith, 19 February 1914. BPP. The Cambridge anthropologist, A.C. Haddon, likewise lauded the work of Smith, noting that '[h]e is well known as a keen and conscientious archæologist who has done some good work in British Columbia and elsewhere.' See A.C. Haddon, 'The Anthropological Survey of Canada,' *Nature* 88 (29 February 1912): 598.

[44] On the Jesup Expedition, see Freed, *et al.*, 'Capitalist Philanthropy and Russian

(continued...)

that this research venture would shed light on the origin of North American Natives, Boas had much different motives.[45] Boas sought to avoid speculation on such questions, noting that '[a]nthropology has reached that point of development where the careful investigation of facts shakes our firm belief in the far-reaching theories that have been built up... . Heretofore we have seen the features common to all human thought. Now we begin to see their difference.'[46] Boas noted the vulgar oversimplification of unilinear evolution, a failing that the Jesup Expedition would help serve to correct: 'we recognize the fact that before we seek for what is common to all culture, we must analyze each culture by careful and exact methods, as the geologist analyzes the succession and order of deposits, as the biologist examines the forms of living matter.'[47]

This assault on the comparative method was a direct challenge to unilinear evolutionary anthropology. In his famous critique of the comparative method which he first presented to the American Association for the Advancement of Science at its Buffalo meeting in 1896, Boas took aim at the leading lights of evolutionary anthropology who, he felt, oversimplified cultural developments to such an extent that it

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[44](...continued)
Revolutionaries,' 7-24; Cole, *Franz Boas: The Early Years*, chapter 11; and Franz Boas, 'Introduction,' *Memoirs of the American Museum of Natural History*, ed. Franz Boas, 2 (1899): 3-6.

[45] Freed, *et al.*, 'Capitalist Philanthropy and Russian Revolutionaries,' 9.

[46] Boas, 'Introduction,' in *Memoirs of the American Museum of Natural History* (1900), II: 4, and *Publications of the Jesup North Pacific Expedition* (1898-1900), I: 4.

[47] Boas, 'Introduction,' 4.

seemed as if a single universal law governed the growth of culture.[48] Although, as historian Douglas Cole notes, Boas did not consistently ignore the comparative method in dissecting the Jesup material,[49] the Expedition did represent an early attempt to go beyond the 'grand and simple theories that explain all being.'[50] Since several of his previous trips to the Northwest had been directed under the auspices of other organizations (often with strict instructions), it was only with the more autonomous Jesup trip that Boas was finally free to pursue his own agenda.[51] On the North American side of the Jesup Expedition, Boas, Harlan Smith, James Teit and Livingston Farrand (in particular) pursued the intensive study of a single cultural group that was designed to illustrate a pattern of historical development and its interaction with neighbouring cultural groups. Smith's role in these initial studies was significant and has often been overlooked. Boas moved constantly between the interior and the coast and his early fieldwork investigated 'disparate research questions regarding physical form, material culture, social custom, language, [and] folklore.'[52] As Ira Jacknis notes, little of it could be called intensive,[53] and perhaps Boas himself was not even the best example of a Boasian methodology given his ambitious circumstances.[54] In contrast, Harland Smith dealt solely with a single sub-discipline of anthropology and directed his energies toward the study of a specific locale: his co-authored study of the cairns of southwestern Vancouver Island, and the San Juan Islands and Whidbey Island in Washington was based on three seasons of fieldwork, including one season in which Boas and Farrand left for New York while Smith stayed on until the autumn rains drove him back east.[55]

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[48] Boas, 'The Limitations of the Comparative Method of Anthropology,' 270-80. Included among those who were indicted for faulty methodology were Daniel Brinton, Adolf Bastian, E.B. Tylor and Herbert Spencer.

[49] Cole, *Franz Boas: The Early Years*, 267; and Ira Jacknis, 'The Ethnographic Object and the Object of Ethnology in the Early Career of Franz Boas,' in *Volksgeist as Method and Ethic: Essays on Boasian Ethnology and the German Anthropological Tradition*, ed. George W. Stocking, Jr. (Madison: University of Wisconsin Press, 1996), 185-86.

[50] Boas, 'Introduction,' 3.

[51] Jacknis, 'Ethnographic Object and the Object of Ethnology,' 192-193.

Despite participating in the Boasian challenge to unilinear evolution, Harlan Smith's research remained diachronically orientated. The difference between the two approaches was, of course, that while evolutionists often concerned themselves with the very origins of humanity and the necessary stages of advancement thereafter, Smith was concerned with a more recent past (albeit sometimes before the advent of western influences) of a culture within a specific locale. Nevertheless, Smith (much like Boas) believed that some indigenous cultures could be classified as 'superior' when compared to others. In his study of shell-heaps along the Fraser River delta Smith argued that the ancient aboriginals of that locale were 'more highly developed' than inhabitants in other parts of the northwest, probably due to a more favourable environment and the likelihood of greater interaction and stimulus from other cultures.[56] Significantly, in a reversal of the imperial metaphor, Smith argued that less advanced cultures could have a noticeable impact on those deemed superior. In particular, he noted that the advent of palaeolithic chipped tools in the more highly developed Fraser delta region had its origins in the interior of what is now British Columbia. The archaeological evidence indicated, Smith believed, that there had been a much stronger connection between the coast and the interior in prehistoric times than during later periods, and at one point some migration to the coast had taken place carrying with it the art of stone chipping, the use of tubular pipes, geometric art and, in later times, the custom of depositing artifacts with the dead.[57]

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[52] Jacknis, 'Ethnographic Object and the Object of Ethnology,' 193.

[53] Jacknis, 'Ethnographic Object and the Object of Ethnology,' 193.

[54] As Leslie Spier noted in 1943, 'Boas had to concern himself with the whole field of anthropology in a way that may never be forced on another man.... Where some of the later students seem to be more systematic because they stayed with one topic, one cannot but feel that this was the result of rather narrow interests, of too limited a conception of anthropology.' Cited in Regna Darnell, *Invisible Genealogies: A History of Americanist Anthropology* (Lincoln: University of Nebraska Press, 2001), 34.

[55] Cole, *Franz Boas: The Early Years*, 194.

Smith's archaeological investigations emphasized the role of diffusion in explaining cultural change and advancement among aboriginal societies of the Northwest. This explanation for explaining cultural change had long been a central feature in the study of European prehistory; significantly, however, anthropologists had been reluctant to apply this explanation of cultural change to the study of aboriginal prehistory. It was only with the onset of Boasian culturalism that anthropologists more commonly began to see diffusion—with its attendant view that Natives were flexible and innovative enough to accept new ideas—as a vehicle for explaining cultural change.[58] Boas' influence on Smith in tracing the diffusion of cultural practices among Northwest aboriginals was overt. Smith noted that it was Boas who had 'called my attention also to the evidence of modern intercourse, which must have extended over long periods, extending north and south in the Cascade Range.'[59] This, he continued, was most clearly seen through the distribution of imbricated basketry, and one could trace the transfer of technique and design from California to the interior of British Columbia and finally to the coastal region between Comox and Victoria.[60]

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[56] Harlan I. Smith, 'Archaeology of the Gulf of Georgia and Puget Sound,' *Memoirs of the American Museum of Natural History* (1903), IV: 436, and *Publications of the Jesup North Pacific Expedition* (1903), II: 436; and idem, 'Shell-Heaps of the Lower Fraser River, British Columbia,' *Memoirs of the American Museum of Natural History* (1903), IV: 436, and *Publications of the Jesup North Pacific Expedition* (1903), II: 190. These articles were published both by the American Museum of Natural History and under the auspices of the Jesup North Pacific Expedition.

[57] Smith, 'Archaeology of the Gulf of Georgia and Puget Sound,' 439; and idem, 'Shell-Heaps of the Lower Fraser River,' 190.

Likewise, diffusion helped to explain cranial anomalies discovered in the fossil record. In the 1890s the Great Fraser (also called the Eburne or Marpole) midden at the south end of present-day Granville Street in Vancouver had been unearthed in the course of road excavation. Charles Hill-Tout had been the first to excavate and interpret the inner contents of this midden, which measured some 1400 feet in length, 300 feet in breadth and averaged 5 feet deep.[61] Within its inner recesses, Hill-Tout discovered two principal types of skulls, the more common brachycephalic (broad-headed) and a single one he identified as dolichocephalic (long-headed).[62] This discovery indicated, Hill-Tout believed, the existence of two population groups, one of whom did not appear to be related to the present-day Natives at all.[63] On the basis of this cranial evidence, Hill-Tout constructed a prehistoric past in which the broad-headed population successfully invaded and overwhelmed the more ancient long-heads of the Fraser delta: in speculating on the replacement of one group by another he noted that 'much of the osteological evidence gathered from these middens seems to support ... the invasion of a hostile people.'[64] Hill-Tout's analysis was revealing. Long-headedness was often associated with advanced intelligence and civilization and, much like the case of the disappearance of the mound builders, the two skulls alluded to the fact that a superior people had been replaced by the ancient representatives of the modern Indian.[65] While Hill-Tout was not able to discern any evidence of a superior civilization in British Columbia's prehistoric past, the disappearance of the long-headed people fit a common nineteenth-century stereotype.[66] Moreover, it also illustrated that the development of North America was much different than what was envisioned for Europe. Anders Retzius, the Swedish scientist who had popularized the cranial index in the first half of the nineteenth century, had constructed a model of European prehistory in which the brachycephalic stone age inhabitants were (with a few exceptions) replaced by long-headed and more advanced Indo-European inhabitants.[67] In contrast, the existence of the broad-headed aboriginal, along with other evidence gathered from mounds and middens, 'tend[ed] to strengthen and corroborate what has been gathered from other sources, that the aborigines of the Northwestern slope ... had scarcely emerged from primitive savagery and barbarism when Europeans first came in contact with them a little over a century ago.'[68] Moreover, it is clear that Hill-Tout did not see the imposition of one population upon another occurring through a peaceful process: that the 'invasion' upon the long-headed population was undertaken in his view by a 'hostile people,' confirmed both the savage disposition of ancient aboriginal peoples and establishing a pattern that expected the replacement of one group by another.

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[58] Bruce G. Trigger, 'American Archaeology as Native History: A Review Essay,' *William and Mary Quarterly* 40, no. 3 (1983): 422; and Gordon R. Willey and Jeremy A. Sabloff, *A History of American Archaeology*, 2nd ed. (New York: W.H. Freeman and Company, 1980), 80.

[59] Smith, 'Archaeology of the Gulf of Georgia and Puget Sound,' 440.

[60] Smith, 'Archaeology of the Gulf of Georgia and Puget Sound,' 440.

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[61] Hill-Tout, 'Later Prehistoric Man in British Columbia,' 103.

[62] Brachycephalic skulls were defined as when the head width was 80% or more of the head length; dolichocephalic skulls were defined as those with a head width 75% or less of the head length. See Owen B. Beattie, 'A Note on Early Cranial Studies from the Gulf of Georgia Region: Long-headed, Broad-heads, and the Myth of Migration,' *BC Studies* no. 66 (Summer 1985): 29; and more generally Gould, *The Mismeasure of Man*, chapter 3.

[63] The parallels to the recent debate on the so-called Kennewick Man are haunting. For two very different ideological stances on this recent controversy, see David Hurst Thomas, *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity* (New York: Basic Books, 2000); and 'Shifting Myths,' *National Post*, 12 June 2001, A19.

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[64] Hill-Tout, 'Later Prehistoric Man in British Columbia,'106; also see Beattie, 'A Note on Early Cranial Studies,' 28.

[65] On the 'superiority' of the long-headed skull see Gould, *The Mismeasure of Man*, 131; and B. Raymond Druian, 'The Cephalic Index: The History of an Idea in Physical Anthropology,' *Northwest Anthropological Research Notes* 10, no. 2 (1976): 177-80.

[66] Hill-Tout, 'Later Prehistoric Man in British Columbia,' 106; and Beattie, 'A Note on Early Cranial Studies,' 28.

[67] Gould, *The Mismeasure of Man*, 131.

In 1898 the Jesup Expedition also conducted an excavation of the Marpole midden in which seventy-five skeletons were unearthed in a single month's work.[69] Smith concurred with the Hill-Tout's earlier argument and noted that the osteological evidence revealed the existence of 'two types of skeletons ... which belong apparently to co-existent people, as they were excavated from the same layers.' Moreover, it seemed that both sets of fossils represented a permanent settlement, for 'if one of these types consisted of captives or slaves, there is nothing in the manner of burial to indicate it.'[70] Smith, however, had a much different explanation for the existence of two skull types. Whereas Hill-Tout accounted for the two cranial forms by theorizing that one population had violently overthrown another, Smith emphasized migration, without attendant violent overtones. Thus, the transfer of cultural practices did not merely involve the intercourse of ideas and practices, but also the physical migration of people from the interior to the coast, an occurrence that had been much more common in 'ancient times' than during the present.[71]

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[68] Hill-Tout, 'Later Prehistoric Man in British Columbia,' 121-22.

[69] Smith, 'Shell-Heaps of the Lower Fraser River,' 134, 139; also see Beattie, 'A Note on Early Crania Studies,' 29.

[70] Smith, 'Shell-Heaps of the Lower Fraser River,' 134; and idem, 'Archaeology of the Gulf of Georgia and Puget Sound,' 436.

Smith made it very clear that it was Boas who had interpreted the skulls as distinct from one another, citing the elder anthropologist at length and including two of his drawings of the crania. Two decades later, Smith 'confirmed' Boas' interpretation by finding two additional skulls at Boundary Bay (some twenty miles south of Marpole), one each of the narrow-headed and broad-headed types.[72] As previously noted, some had seen the presence of two cranial types as indicative of two separate populations, one of which (the narrow-headed) had been wiped out by the other. In contrast, Smith argued that they were coterminous, and, despite some small differences, noted the continuity between prehistoric culture and the Natives who now lived in British Columbia.[73] While contemporary representatives of broad-headed crania were easily located, Smith even suggested that 'the strange type of Indian [the narrow-headed] might be found today if we made a closer study of the surviving natives.'[74] The study of prehistoric archaeology thus pointed to the great antiquity and continuity of aboriginal peoples in the northwest: while shell-heaps could not reveal the depth of Native antiquity precisely, the Marpole midden had a tree on it with over 400 annual rings while a second, even larger, hollow tree stood nearby. Furthermore, there was no reason to think that these shell-heaps were the oldest that could be found, and Smith suggested the presence of others that may be centuries older, even perhaps predating the Christian era.[75]

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[71] Smith, 'Archaeology of the Gulf of Georgia,' 441; and idem, 'Shell-Heaps of the Lower Fraser River,' 190. Owen Beattie argues that by the 1920s Harlan Smith had retreated from the idea of migration as an explanation for the presence of a second cranial type.

[72] Harlan I. Smith, 'Trephined Aboriginal Skulls from British Columbia and Washington,' *American Journal of Physical Anthropology* 7, no. 4 (1924): 447.

[73] Smith, 'Shell-Heaps of the Lower Fraser River,' 188-90; idem, 'Archaeology of (continued...)

The presence of these two cranial types in coastal middens was clearly contested ground for those who interpreted the prehistoric population patterns of ancient British Columbia. In 1933 G.E. Kidd prepared a report on two hundred coastal skeletons that had been recovered two years earlier. Although Kidd's investigations did not discern more than one cranial type, Boas' earlier assertion that two distinct types were present exerted its informal authority.[76] Likewise, Diamond Jenness' survey of aboriginal

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[73](...continued)
the Gulf of Georgia,' 441; and idem, 'Kitchen-Middens of the Pacific Coast,' 44.

[74] Smith, 'Kitchen-Middens of the Pacific Coast,' 44.

[75] Smith, 'Kitchen-Middens of the Pacific Coast,' 46.

[76] Beattie, 'A Note on Early Cranial Studies,' 32-33.

prehistory accepted the presence of two distinct ancient populations.[77] More recent analysis has questioned Boas' influential conclusions. Anthropologist Owen Beattie notes that Boas' data are misleading in a number of ways: in addition to obvious sex and age differences between the two samples, his drawings were misleading and created the impression of greater physical difference than may actually exist.[78] Further, Beattie notes that cranial deformation was rare or even absent among the earliest inhabitants of the south coastal region (500 BCE or earlier) and then became more common thereafter.[79] Based upon Beattie's conclusions, the inference that osteological or cranial evidence cannot be used to justify theories of hostile invasion or migration appears warranted.

Writing to F.W. Hodge, the director of the Bureau of American Ethnology in Washington, D.C., Harlan Smith perceptively reflected that his 'tendencies have always been more as a promoter and missionary with the people endeavoring to convince them of the values of scientific work... .'[80] Whatever his limitations as an anthropological

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[77] Diamond Jenness, 'Indian Prehistory as Revealed by Archaeology,' *The University of Toronto Quarterly* 1, no. 2 (1931-1932): 176.

[78] Beattie, 'A Note on Early Cranial Studies,' 30-31.

[79] O.B. Beattie, 'An Analysis of Prehistoric Human Skeleton Material From the Gulf of Georgia Region of British Columbia,' (unpublished Ph.D. dissertation, Simon Fraser University, 1981), 60-61; cited in Beattie, 'A Note on Early Cranial Studies,' 33-34.

[80] Harlan I. Smith to F.W. Hodge, 23 January 1916. Harlan I. Smith Correspondence, Canadian Museum of Civilization. Fiche B216 FH. Also see Harlan I.

(continued...)

theorist, Smith had an extensive background and expertise as a museum curator, having experience at the Chicago Exposition, the University of Michigan, the American Museum of Natural History and the newly-opened Victoria Memorial Museum in Ottawa. In addition to helping organize the anthropology exhibit on the second floor of the west wing of the Victoria Museum, in 1912 Smith organized a Saturday morning lecture series for children, a programme that soon mushroomed into one or two Saturday sessions for children and two Wednesday sessions for adults. The success of this programme was impressive, and by 1927 W.H. Collins noted that some 9,500 children and 2,300 adults attended each session.[81]

Smith's museum efforts illustrated a marked movement away from his Chicago evolutionism. Writing to Diamond Jenness in 1926, he recognized the implicit ideological nature of museum display, noting that exhibits are 'designed to emphasize certain facts or ideas rather than to display any individual specimen or group of specimens. The question always to be borne in mind is what ideas do we wish our visitors to carry away?' To that end, 'casts, models, diagrams, photographs, paintings and other pictures' were to be used 'as freely as specimens' in order to 'reinforce the idea of the exhibit,' while any item 'not in harmony' was to be culled. Smith's

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[80](...continued)
Smith to Franz Boas, 9 September 1912 and 14 February 1914. BPP.

[81] Dyck, 'Toward a History of Archaeology in the National Museum of Canada,' 123-25.

conversion to a Boasian culture model is apparent in his creation of a 'virtual history' of aboriginal peoples in Canada: displays were to be organized into 'Culture Area exhibits' that would, for example, examine aboriginal people of the Prairies or Pacific coast, and then further divided into displays of 'tribal subdivisions such as [the] Haida, [or] Tsimshian... .'[82] In the years since the Chicago Fair, Smith's ideology of display had changed considerably, and in his 'honest way' the investigation of an individual culture irrespective of its 'contribution' to human progress had become a principal theme in his prehistoric explorations.

The British Invasion

At the British Association for the Advancement of Science meeting in Liverpool in 1896, C.H. Read of the British Museum read a paper which urged the creation of an imperial bureau of ethnology that would be centred in England but whose mandate would encompass the whole of the empire. Read perceived that such an institution would loosely be modelled on the American Bureau of Ethnology, and he claimed that an ethnological survey promised great benefits to both Britain and the empire: beyond its contributions to science, it was reported that the bureau's 'strongest claim to existence' would lie in the 'immense service' that it would provide to colonial officials at home and especially abroad.[83] This petition received widespread support among British anthropologists, and notables such as John Evans, John Lubbock, E.B. Tylor and A.C. Haddon joined with Read in advocating the formation of such an institution.

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[82] Harlan I. Smith to Diamond Jenness, 26 February 1926. Diamond Jenness Correspondence, Canadian Museum of Civilization. Box 657, file 50.

Despite the persistence of Haddon and others, the call for an imperial survey was not heeded. Since the 1884 meeting in Montreal, the British Association had sponsored a series of ethnological investigations among the northwestern tribes of Canada.[84] The committee had, however, delivered its twelfth and final report at the Bristol meeting in 1898 and intermittent efforts to revive its work had met with little success.[85] Thereafter, the British Association encouraged the formation of a Canadian survey, which would without question operate within an imperial context.[86] When the British Association

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[83] A.C. Haddon, 'A Plea for a Bureau of Ethnology for the British Empire,' *Nature* 56 (14 October 1897): 574; also see idem, 'A Plea for the Study of the Native Races in South Africa,' *Nature* 63 (13 December 1900): 157-59.

[84] For a thorough discussion the British Association's involvement in sponsoring anthropological research in Canada, see Gale Avrith, 'Science at the Margins: The British Association and the Foundations of Canadian Anthropology, 1884-1910,' (unpublished Ph.D. dissertation, University of Pennsylvania, 1986).

[85] A.C. Haddon, 'The Anthropological Survey of Canada,' *Nature* 88 (29 February 1912): 597-98.

[86] As Carl Berger notes in his influential study, *The Sense of Power*, the ideology of imperialism was a central component of English-Canadian nationalism during this period. The Winnipeg meeting exuded this sentiment. For example, Dr. Herbert Branston Gray, who spent thirty years at Bradfield College, Berkshire, as warden and gained a reputation as one who would make provision for boys looking for a career in the Dominions or colonies, delivered the keynote address at the Educational Science Section at Winnipeg. To his mixed British and Canadian audience he announced: 'It is of course a commonplace that we have inherited an Empire so vast & complex as to be

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held its 1909 meeting in Winnipeg, a committee chaired by Reverend George Bryce was established to petition the government for a national survey in order 'that full and accurate records [could] be obtained of the physical character, geographical distribution and migrations, languages, social and political institutions, native arts, industries, and economic systems, of the aboriginal peoples of the country.'[87] On 1 September 1910, a division of anthropology under the auspices of the Geological Survey of Canada was established with Edward Sapir as director. It was with delight that A.C. Haddon lauded the role of the British Association in urging the Canadian government toward this conclusion, and noted that this was one more way in which the overseas meetings 'justify themselves.'[88]

The creation of the anthropological division of the Geological Survey obviously did not occur simply at the urging of the British Association. Signalling an internal need

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[86](...continued)
unique in the world's history, & and it is commonly [...] [thought] that we owe that Empire to the innate racial genius of Englishmen... .' Following the Winnipeg meetings Gray bought a 200-acre ranch in Alberta for Bradfield boys who wished to become 'colonists.' Dr. Herbert Branston Gray Fonds (n.t.). National Archives of Canada, Ottawa. Box 1.

[87] British Association for the Advancement of Science, 'Resolution of Council for the Archaeological Institute of America ...1909.' British Association for the Advancement of Science Manuscripts, Canadian Museum of Civilization, Hull. The Canadian Department of the Archeological Institute of America, the Royal Society of Canada, and the British Association all signed this resolution and it was sent to the Governor General in Council of Canada. Also see Avrith, 'Science at the Margins,' 269-70.

[88] Haddon, 'The Anthropological Survey of Canada,' 597.

to develop a Canadian ethnological programme, R.W. Brock, the director of the Survey, had already signalled a willingness to undertake anthropological work by sponsoring both Vilhjalmur Stefansson's work in the Arctic and the soon-to-be completed Victoria National Museum, which would house ethnological displays and undertake further research.[89] However, hoping to further spur the Canadian government to action, J.L. Myres, President of Section H (anthropology), made a direct appeal to the success of the American survey by inviting Franz Boas to deliver a paper at Winnipeg.[90] Repeating his message delivered to the International Congress of Americanists held at Quebec in 1906, Boas noted the urgent need for the creation of a Canadian survey and the subsequent study of theoretical and historical questions regarding the indigenous populations of the Dominion.[91]

The initial formation of the anthropological division represented a convergence of both British and American interests and schools of thought. Through consultation with Boas, R.W. Brock had selected Edward Sapir as director and subsequently appointed Harlan Smith as archaeologist.[92] The Boas nexus also extended to contract

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[89] Avrith, 'Science at the Margins,' 264.

[90] Avrith, 'Science at the Margins,'266-67.

[91] Franz Boas, 'Ethnological Problems in Canada,' *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 40 (1910): 529-39.

[92] R.W. Brock to Franz Boas, 9 May 1910; Franz Boas to R.W. Brock, 14 May 1910; R.W. Brock to Franz Boas, 16 May 1910. BPP; and Avrith, 'Science at the Margins,' 270-73. For the eclectic construction of the Ottawa 'research team' see

(continued...)

work, and at various times the Geological Survey hired former Boas students such as Alexander Goldenweiser, Frank Speck and Paul Radin, each of whom went on to achieve some standing in American anthropology.[93] In addition, however, the original constitution of the anthropological division also reflected an intellectual debt to British anthropology. Sapir and Smith were joined by Marius Barbeau, a brilliant French Canadian who had received his training at Oxford, and presently by Francis Knowles, a physical anthropologist and fellow Oxonian whose ill-health ultimately prevented him from making a significant contribution to the anthropological work of the Survey. The influx of British-trained anthropologists to Canada continued following the Great War. After completing the two-year programme in anthropology at Oxford, New Zealand-born Diamond Jenness did field work in New Guinea and subsequently spent three years in the Arctic with the Canadian Arctic expedition before joining the Canadian field artillery in 1917.[94] Following the war, he returned to Canada to marry Frances Eileen

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[92](...continued)
Darnell, *Edward Sapir*, chapter 4.

[93] In his search for permanent employment, Paul Radin apparently had offers to undertake ethnological work in British Guiana, but refused, choosing instead the Canadian option. As Radin told Sapir, he preferred 'to go to Hell in the direct way instead of by way of British Guiana.' See Paul Radin to Edward Sapir, 1 February 1912. Edward Sapir Correspondence, Canadian Museum of Civilization. Box 631, file 51. Although Speck did his Ph.D. at Pennsylvania, co-operation with Columbia University allowed Boas to direct his research. Speck and Radin later established themselves at Pennsylvania and Berkeley, respectively.

[94] Even prior to the War, Robert Marett had recommended Jenness to Marius (continued...)

Bleakney and take on a position at the National Museum as anthropologist. In 1926 he replaced Sapir as head of the Anthropological Section of the National Museum.[95]

With the import of British-trained anthropologists, Canadian anthropology informally reflected some overseas intellectual trends. The Boas-driven Jesup expedition of 1897 was unofficially parallelled by the trans-disciplinary Cambridge Expedition to the Torres Straits in the south Pacific which began the following year. The expedition originated with and was led by A.C. Haddon, who had made his first visit to the Torres Straits in 1888 and was to go on to be one of the seminal figures in Cambridge anthropology through the first decades of the twentieth century. While the first Torres expedition had resulted in Haddon's conversion from zoology to anthropology, the second proved to be more broadly influential on the direction of British anthropology.[96] Through the influence of James Frazer, Haddon returned from

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[94] (...continued)
Barbeau, noting that 'He's a splendid little chap, so competent and keen ... He holds our Diploma and is quite first class for physical and social anthropology alike... .' R.R. Marett to Marius Barbeau, 16 January 1916. Marius Barbeau Correspondence, Canadian Museum of Civilization. Box 218, file 37. Emphasis in the original.

[95] On Jenness see Henry B. Collins and William E. Taylor, Jr., 'Diamond Jenness (1886-1969),' *Arctic* 23, no. 2 (1970): 71-81; and Frederica De Laguna, 'Diamond Jenness, C.C. 1886-1969,' *American Anthropologist* 73, no. 1 (1971): 248-54.

[96] On Haddon's anthropological career see J. Urry, 'From Zoology to Ethnology: A.C. Haddon's Conversion to Anthropology,' *Canberra Anthropology* 5 (1982): 58-85; and Arturo Alvarez Roldán, 'Looking at Anthropology From a Biological Point of View: A.C. Haddon's Metaphors on Anthropology,' *History of the Human Sciences* 5, no. 4 (1992): 21-32. On the importance of the Cambridge Expedition to the Torres Straits to (continued...)

the Torres Straits to a modest lectureship at Cambridge and an ambitious desire 'to found and establish a school of anthropology in the widest sense of the term.'[97] In time, Haddon was successful: after the death of W.H.R. Rivers in 1922 he became the spokesman for the Cambridge School and 'Leader and Dean of British Field Anthropology.'[98] Although he had previously emphasized the utilitarian value of applied anthropology in both its national and colonial contexts, the Cambridge undergraduate programme also reflected aspects of a methodological revolution within the discipline. While the Torres Strait expedition parallelled the Jesup, the reaction of British social anthropology against evolutionary anthropology was more gradual than the Boasian critique.[99] Both schools, however, shared a commitment to intensive field work within a culturally defined area. Beyond methodological advances, the Great War had a profound impact upon the architects of British social anthropology. Robert Marett, with whom Diamond Jenness and Marius Barbeau had worked while at Oxford,[100] proclaimed

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[96](...continued)
the overall development of British Anthropology, see Stocking, *After Tylor*, 98-115; Kuklick, *The Savage Within*, 133-42; and the essays collected in Herle and Rouse, ed., *Cambridge and the Torres Straits*.

[97] A.C. Haddon to G. Howes, 19 May 1901; cited in Rouse, 'A.C. Haddon and Anthropology at Cambridge,' 50.

[98] Stocking, *After Tylor*, 274.

[99] Stocking, *Victorian Anthropology*, 124.

[100] For a sample of Marett's long-standing interest and admiration of the careers of Jenness and Barbeau, see R.R. Marett to C.M. Barbeau, 6 January 1939. Marius
(continued...)

in the midst of the war that 'savage impulses' were always 'dormant in the heart of civilised man' and were ready to 'spring to life again.'[101] Such a critique of Western civilization was not isolated and indeed was central to emerging anthropological views.[102] No longer was it as common to insist that western forms of society were inherently superior to all others. Indeed, in the immediate years following the Great War Alfred Reginald Brown and Bronislaw Malinowski reacted against the evolutionary anthropology of the late Victorian era and redefined the essential character of British social anthropology. Far more synchronically-orientated than Boasian anthropology, British social anthropology as it emerged in the interwar era understood individual cultures as organic entities in which individual components were intimately linked to the coherent whole. Although Brown and Malinowski had obvious differences, their approaches, as Raymond Firth noted in 1951, were 'at bottom complementary rather than antagonistic.'[103] Each dedicated his efforts to exploring the function—often biological in the case of Malinowski and social in the case of Brown—of a particular

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[100](...continued)
Barbeau Correspondence, Canadian Museum of Civilization. Box 218, file 37.

[101] R.R. Marett, 'The Pyschology of Culture Contact, Presidential Address to the Folklore Society,' *Folk-Lore* 28 (1917): 14; cited in Kuklick, *The Savage Within*, 119.

[102] Kuklick, *The Savage Within*, 119; and idem, 'Images of Political Authority in British Anthropology,' 69.

[103] Raymond Firth, 'Contemporary British Social Anthropology,' *American Anthropologist* 53, no. 4 (1951): 480.

custom and its relationship to the larger cultural group.[104]

In addition to Jenness and Barbeau, a principal 'export' of the British school was Thomas Forsyth McIlwraith. McIlwraith was born in Hamilton in 1899 where he attended Highfield School. Upon completion he entered McGill in 1916, but by June, 1917 had enlisted as a private in the University Overseas Training Company before being transferred to the British Expeditionary Force. His direct exposure to the war was limited, for he sailed for France just a month prior to the armistice. Nevertheless, he was eligible for an Imperial Settlement Scholarship which he took at Cambridge where he placed in the first class in the Anthropological Tripos in 1921. Thereafter, McIlwraith remained to lecture in the Department of Anthropology for a year before accepting a contract position as a field assistant with the National Museum of Canada where he undertook a comprehensive study of the Bella Coola. This proved to be his seminal field experience: for two six-month periods between 1922 and 1924 McIlwraith immersed himself among the Bella Coola or Nuxalk, a culture which Boas had also studied extensively. He followed this field work by taking a position as research assistant at Yale in 1924-1925. Permanent employment was slow in materializing. However, one can see the hand of A.C. Haddon in desiring to extend patronage and influence via his own students. Writing in 1923 Haddon advised McIlwraith:

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[104] On the emergence of British Social Anthropology, see Adam Kuper, *Anthropology & Anthropologists: The Modern British School*, 3rd ed. (London: Routledge, 1996 [1973]); Henrika Kuklick, *The Savage Within: The Social History of British Anthropology, 1885-1945* (Cambridge: Cambridge University Press, 1991); and Stocking, *After Tylor*, especially chapters 6-8

> I have told [Alfred Reginald] Brown about you + he is quite prepared to push you [for a lectureship in Social Anthropology at Transvaal University College] should you care to apply. I think this is a good chance for you + may lead to something better here... . From what I have heard about Toronto there does not seem much chance in that direction, and I am inclined to recommend you to apply for the Pretoria job.[105]

Despite Haddon's pessimism over the Toronto position, McIlwraith succeeded in returning to Canada as an anthropology lecturer at the University of Toronto in 1925, the first such permanent appointment in Canada. In obtaining this position, McIlwraith had a clear sense of his intellectual lineage, writing to Haddon:

> I am feeling tremendously pleased about it [his appointment], as you can imagine. It is too soon to wonder how conditions at Toronto will be, but I have every hope that I will be able to build up a school there. And it will cer inly [sic] be one founded on your doctrine and methods, the more I see of the American style of doing things, the less impressed am I by it.[106]

This appointment proved to be lasting, for in 1936 the Department of Anthropology was created with McIlwraith named Professor and head, a position he authoritatively maintained until his death in 1964.[107]

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[105] A.C. Haddon to Thomas F. McIlwraith, 22 July 1923. TFMP. Box 2, file 1. Along with Bronislaw Malinowski, Brown was the most prominent figure in British social anthropology. In April, 1926, Brown changed his surname to Radcliffe-Brown. On Haddon's efforts to find suitable employment for McIlwraith, see Thomas F. McIlwraith to Edward Sapir, 26 September 1924. Edward Sapir Correspondence, Canadian Museum of Civilization. Box 628, file 24; and Diamond Jenness to C.M. Barbeau, 6 November 1924. Marius Barbeau Correspondence, Canadian Museum of Civilization. Box 206, file 27.

[106] Thomas F. McIlwraith to A.C. Haddon, 16 December 1924. Haddon Papers, Cambridge University Library. I am grateful to my colleague, Dr. Richard Neville, for supplying me with copies of McIlwraith's correspondence with Haddon.

One of the central tenets of evolutionary anthropology had criticized Native uses of land and indigenous conceptions of property. Alexander Begg, the nineteenth-century Prairie novelist and historian, drew attention to the ineptitude of the Native in properly utilizing the land: 'thousands of acres,' he wrote in *Dot it Down*, 'are lying waste for want of cultivation.' Just in case readers did not glean sufficient insight or moral justification into how to conquer the prairie from his novel, Begg included an appendix entitled an 'Emigrants Guide to Manitoba' which announced that there would be little difficulty in aiming 'to extinguish the Indian titles.'[108] This ideology of landownership was challenged by an emerging critique of evolutionary anthropology. Instead, McIlwraith argued that 'complexity in our own society prepars [sic] us for finding the same among primitive peoples... .' If one recognized this essential parallel, then 'we are in a position to understand forms of primitive ownership.' While some argued that western individualism was the superior form of land ownership, and, as a corollary had decided 'that [the] opposite, communism, must be primitive,' McIlwraith maintained that such reasoning was '[n]ot borne out by [the] facts.'[109] Instead, in his study of the Nuxalk, he noted that there had even been great difficulty in obtaining information about aboriginal land tenure because of the great resentment by Natives over white settlers who had occupied territory without proper negotiations.[110] Indeed, reversing the simplistic notion of land ownership that evolutionary anthropology maintained, McIlwraith noted that land ownership among the Nuxalk was exceedingly complex: while a hunting area was not the property of any individual, some land rights were inalienable, even between a husband and a wife. Thus, while a husband could make use of his wife's ancestral property, he did not own it. Conducting his research soon after the conclusion of the Great War, McIlwraith noted that the Nuxalk were puzzled when he told of how the Allies were able to appropriate German territory. According to the Nuxalk, killing or enslaving the Germans would have been 'moral and proper'; to claim land, however, was a unheard occurrence.[111] Moreover, like all other aspects of society, systems of land ownership must be understood within the context of aboriginal mythology. Upon reaching the earth for the first time, the first people had sought out places where salmon and oolichan could be caught and berries gathered. Here they released the animals and plants they had brought. Within a few years, the supreme deity had sent down an *Ätquntäm* who allotted and marked the property of each community.[112] The implications were profound, and McIlwraith noted that this understanding 'really gave a sacred sanction to the possession of land, an important matter to a people so religiously inclined as the Bella Coola.'[113] McIlwraith's interpretation thus saw the Nuxalk system of land ownership as one that was heavily integrated into all aspects of society, and had the effect of reducing the irrational to the rational.

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[107] The biographical details in this paragraph draw from Harold Averill, 'Biographical Sketch,' in 'Finding Aid for Thomas F. McIlwraith Papers,' University of Toronto Archives; Thomas F. McIlwraith, 'Who's Important in Science,' TFMP. Box 1, file 1; and John Barker, 'T.F. McIlwraith and Anthropology at the University of Toronto 1925-1963,' *Canadian Review of Sociology and Anthropology* 24, no. 2 (1987): 252-68.

[108] Alexander Begg, *Dot it Down*, 289, 379. Also see Kehoe, *The Land of Prehistory*, 64-69.

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[109] T.F. McIlwraith, 'Lectures. Social Organization [n.d.].' TFMP. Box 7, file 29.

[110] T.F. McIlwraith, *The Bella Coola Indians*, ed. and introduced by John Barker, 2 vols. (Toronto: University of Toronto Press, 1992 [1948]), I: 130.

[111] McIlwraith, *Bella Coola Indians*, I: 131-33.

The emphasis in post-Great War social anthropology was toward the separation of race and culture, and by the 1930s most prominent British anthropologists save C.G. Seligman at the University of London had assumed this position.[114] McIlwraith's first series of courses at the University of Toronto included a course entitled 'The Races of Man' in which the twenty-third lecture was on the topic of 'Race and Culture.' These two terms, his annotations noted, were not synonymous, for their conflation ignored issues of hybridity, environment and even the influence of individuals and groups on

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[112] Within this context, *Ätquntäm* refers to one of the first men to settle the upper Bella Coola or upper Kimsquit during the beginning of time. *Ätquntäm* also contains sacred connotations, and is the Nuxalk word for the supreme god. See McIlwraith, *Bella Coola Indians*, II: 577.

[113] McIlwraith, *Bella Coola Indians*, I: 131.

[114] Henrika Kuklick, 'Tribal Exemplars: Images of Political Authority in British Anthropology, 1885-1945,' in *Functionalism Historicized: Essays on British Social Anthropology*, ed. George W. Stocking, Jr. (Madison: University of Wisconsin Press, 1984), 70.

'the essential conservation of the race.'[115] Likewise, in his lectures before medical students at the University of Toronto, he insisted that even in the prehistoric past divisions between human types was dependent more on culture than on race.[116]

However, in spite of an emerging intellectual heritage that sought to keep race and culture independent, McIlwraith was not able to escape all elements of racial typology in his anthropological work. Belief in the recapitulation thesis—that the history of a species is reproduced in its embryo—was a central tenet of evolutionary anthropology,[117] for its principal assumptions denied that human differences existed as a result of cultural influences. Although some had begun to question its validity, McIlwraith appealed to recapitulation as an illustration of humanity's origin from a lower ape-like ancestor.[118] However, in contrast to Charles Hill-Tout and other evolutionary anthropologists who utilized recapitulation to reason that the development of the individual must inevitably follow a single pattern from which variation was unlikely, McIlwraith drew upon this theory as a means of validating Darwinian evolution.[119] McIlwraith's contradictions over race and culture are more apparent in his involvement in the eugenics movement that was prominent in inter-war Canada. As one of the leading academics who formally became a member of the Eugenics Society of Canada,[120] McIlwraith was on occasion invited to participate in studies that attempted to correlate race and behaviour. In 1929 the departments of Obstetrics and Gynaecology, Anatomy, and Anthropology at the University of Toronto began a series of 'anthropological measurements' at Burnside Hospital in which over a thousand maternity patients with their infants and, on occasion, their partners, were measured in order to determine the relationship (if any) between racial mixture and obstetrical problems.[121] Relying upon the authority of McIlwraith, this study noted that among the more 'primitive' races, 'such as [those in] many part [sic] of Africa, the regions of the Eskimo, the islands of the Pacific, and many part [sic] of the Americas, ... women in childbirth are often virtually unattended—labor being apparently associated with little pain or difficulty.'[122] To those involved in the study the contrast with maternity patients in Toronto seemed striking.

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[115] Thomas F. McIlwraith, 'Proposed Syllabus for Lectures in Anthropology.' TFMP. Box 7, file 17.

[116] T.F. McIlwraith, 'Lectures. 3rd Medicine. History of Man, (1927).' TFMP. Box 7, file 21.

[117] Kuklick, 'Images of Political Authority in British Anthropology,' 63.

[118] T.F. McIlwraith, 'Human Evolution. Lectures 20-39 [lecture 28].' Box 8, file 17; idem, 'Evolution. Lectures 1-19 [lecture 7].' Box 8, file 16; and idem, 'The Beginning of European Civilization, Lectures 20-39 [lecture 30], (CFRB University Broadcast. 12/1/32).' Box 8, file 17. TFMP. Recapitulation theory in various crude forms continued to be accepted at reputable scientific institutions into the 1930s. See Jahoda, *Images of Savages*, chapter 13.

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[119] For a discussion of Darwin that emphasizes his reliance upon recapitulation theory see Richards, *The Meaning of Evolution*.

[120] Angus McLaren, *Our Own Master Race: Eugenics in Canada, 1885-1945* (Toronto: McClelland & Stewart, 1990), 203, note 34. Also see T.F. McIlwraith to Diamond Jenness, 13 October 1930. TFMP. Box 2, file 2.

[121] In the first series of measurements, some 800 individuals were measured; these measurements were deemed less accurate and full due to inferior equipment and were followed by a second investigation of 436 mothers and infants that involved some 20,000 individual measurements.

The methodology of the study was obviously heavily flawed from the very onset. Goodman's report queried whether the 'effect[s] of civilization' with its diminution of physical activity and differences in food and diet were responsible for lengthening the duration of labour and the increased number of difficulties in child birth. This explanation was immediately rejected. Instead, the report concluded that

> The duration of labour and its difficulties are increased considerably when the parents are of different racial types. Head and pelvic form would seem to be definitely racial characteristics and dissimilarity in the two parents have a definite influence on labour. These disharmonies are measurable, and predictions of considerable value with regard to the type of labour to be expected in a given case may therefore be made.[123]

The correlation was apparently clear: the hybridity of races resulted in a weaker physical form and, as one consequence, increased the difficulties that mothers could expect in childbirth. Ironically, in 'civilized' societies such as Canada and the United States the infant and maternal mortality rates would inevitably be much higher than in racially 'pure' societies such as China, Scandinavia and 'primitive' Africa. The former were characterized by the 'melting pot phenomenon,' and as a consequence 'of continued boiling, the fires of which are kept ever bright and burning by our immigration officials, we are finding produced a curious mixture of types, which one can hardly but otherwise classify as mongrel.'[124] The immigration policies of North America had apparently weakened its racial stock,[125] and the committee called for further research on the matter both at home and through various colonial services and mission boards in the quest for further data on 'primitive' pregnancies.

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[122] Dr. [James] Goodman, 'Mixture of Races as a Factor in Obstetrics.' TFMP. Box 5, file 8.

[123] Goodman, 'Mixture of Races.' TFMP. Box 5, file 8. Emphasis in the original.

In 1932 the number of anthropologists at the University of Toronto doubled with the appointment as lecturer of C.W.M. Hart, an expert in the indigenous populations of Australia who was hired from the London School of Economics on the advice of Arthur Radcliffe-Brown and Charles Seligman.[126] Although never officially a member of the Eugenics Society of Canada, Hart participated in a series of radio talks sponsored by the Society on the Canadian Broadcasting Corporation in 1938. While Hart's radio performance was a nondescript discussion on evolution, it is significant that among the four speakers were the well-known 'eugenic zealots' A.M. Harley, who lectured on the California sterilization law, and Dr. William Hutton, who discussed the future of the race.[127] While Hart was never a convinced eugenicist in the mode of Harley or Hutton, the forthcoming war in Europe was to have a profound influence on his view of the racial character of nations.

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[124] Goodman, 'Mixture of Races.' TFMP. Box 5, file 8.

[125] See, for example, the appropriately named Robert England, 'British Immigration,' *Queen's Quarterly* 36, no. 1 (1929): 131-44; and W. Burton Hurd, 'The Case for a Quota,' *Queen's Quarterly* 36, no. 1 (1929): 145-59.

[126] Thomas F. McIlwraith to Diamond Jenness, 15 December 1932. Diamond Jenness Correspondence, Canadian Museum of Civilization. Box 650, file 34; and Levin, Avrith and Barrett, 'An Historical Sketch,' 5, 7.

Writing in the early years of the war, Hart recognized that events in Nazi Germany had underlined 'racial' problems and produced a vigorous response to such thinking.[128] 'Confronted with a barbarous use of race-thinking in Nazi Germany,' Hart noted that too often academics and the general public made 'counter-assertions that the German "race" is "naturally uncivilized," and that nothing would be so likely to ensure the future peace of the world as its extermination. '[129] Instead, Hart concurred with Franz Boas in asserting that 'a close connection between race and personality (or temperament or character) has never been established.'[130] Hart was not alone in this critique, of course, and his colleague Thomas McIlwraith was one of the most prominent academic voices in arguing for the separation of race and culture.[131] McIlwraith gave an early hint of his evolving views on this relationship in a lecture before the Paracelsus Club in January, 1940, noting that 'culture is assumed to be racially correlated' but that the evidence suggested otherwise.[132] Instead, no prejudice existed, for example, between Mediterranean and Nordic peoples, except under certain virulent forms of leadership such as that typified by Nazi Germany.[133] The elements of British social anthropology that isolated race and culture were given further impetus with the wider realization of the manifestations of Nazi ideology. In the midst of the war effort, McIlwraith delivered a series of public lectures in which he criticized the belief in the racial superiority of 'Aryans' as 'Nordic rubbish.'[134] 'The problem [of national conflict] is not biological,' he stated, '...[b]ut what we dislike is culture and that changes.'[135] On occasion he illustrated this point by asking students to identify to which human group the following description applies:

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[127] McLaren, *Our Own Master Race*, 124. W. Burton Hurd, professor of political economy at McMaster University, was the fourth speaker sponsored by the Eugenics Society of Canada. On Hurd's preference that immigrants 'should be white, sound physically and mentally, [and] not morally deficient,' see his 'The Case For a Quota,' 145-59, quotation from page 146.

[128] C.W.M. Hart, 'The Race Myth,' *The University of Toronto Quarterly* 11, no. 1 (1941-1942): 180.

[129] Hart, 'The Race Myth,' 182.

[130] Hart, 'The Race Myth,' 188. Hart is quoting from Franz Boas, *The Mind of Primitive Man*, rev. ed. (Toronto: Macmillan, 1938 [1911]).

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[131] As Angus McLaren notes, World War II was central in destroying the Eugenic Society of Canada. See McLaren, *Our Own Master Race*, chapter 8.

[132] Thomas F. McIlwraith, 'Lectures 40-69 [lecture 63],' TFMP. Box 8, file 18. Emphasis in the original.

[133] Thomas F. McIlwraith, 'Lectures 40-69 [lecture 63].' TFMP. Box 8, file 18.

[134] T.F. McIlwraith, 'Race, Lectures 70-89 [lecture 76].' TFMP. Box 8, file 19. McIlwraith's notes indicate that he delivered this lecture before the Rotary Club on 1 September 1944, Lawrence Park College, 11 December 1944, and Howard Park Church, November 1945.

[135] McIlwraith, 'Race, Lectures 70-89 [lecture 76].' TFMP. Box 8, file 19; idem, 'Race, Geography, and Race Contact,' TFMP. Box 8, file 18.

> He is cannibalistic, incestuous, naked, possesses his wives in common, lives on wild fruits and not cultivated cereals, indulges in head-hunting, has no settled living-place which can be called a house, and generally betrays the characteristics of pure savagery.[136]

Given this description's parallels to stereotypes of North American aboriginals, it is not surprising that McIlwraith apparently never had a student identify this passage as an ancient Roman writer's description 'of the barbarous inhabitants of the insignificant islands of Britain on the edge of the civilized world.'[137]

In the midst of changing notions of race and culture, C.W.M. Hart recognized the important role of public education in breaking down the 'older and vicious tradition' of 'such racial nonsense as the "natural genius of the Anglo-Saxons for democracy."'[138] Likewise, in his role as a public educator McIlwraith sought to give meaningful voice to the separation of race and culture brought on by the realization of wartime atrocities. Writing to her professor of the previous year, Dorothy Back of the Hamilton Normal School, invited McIlwraith to lecture to her high school students noting that 'we have the task of educating a post-war generation; and I feel sure that you could give us all a new outlook on the study of man.'[139] McIlwraith quickly affirmed this commitment, but argued that 'I want to emphasize that the so-called primitive peoples to whom there are so many references in the new curriculum of the social studies are not mere "funny people." I think that is one of the important lessons of Anthropology and it is one that I would like to stress to those of you who are going out as teachers.'[140] In true functionalist fashion, a hopeful McIlwraith stressed that even in the midst of war it was vital that the exotic be made familiar.

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[136] T.F. McIlwraith, *On Race and Culture. An Address Delivered at Founders' Day, 1951 in Commemoration of the Founding of the University in 1800* (Fredericton (?): n.p., 1951), 2-3; and idem, 'On Race and Culture, Lectures 90-111 [lecture 93],' TFMP. Box 8, file 20.

[137] McIlwraith, *On Race and Culture*, 3.

[138] Hart, 'The Race Myth,' 188.

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[139] Dorothy L. Back to Thomas F. McIlwraith, 4 February 1941. TFMP. Box 1, file 10.

[140] Thomas F. McIlwraith to Dorothy L. Back, 5 February 1941. TFMP. Box 1, file 10.

Epilogue

With the completion of Sidney Smith Hall in 1961 and the subsequent move of the Department of Anthropology to its new quarters, Thomas McIlwraith was forced to move from his lodgings of some thirty years, a process he called a 'nightmare,' but also one that contained some considerable compensations. Among the inevitable 'flotsam and jetsam of academic life' that had accumulated, McIlwraith unearthed a long-forgotten copy of a review of Daniel Wilson's *Prehistoric Man* by an anonymous reviewer in the *North British Review* in 1863. Although he remembered that he had 'skimmed through' *Prehistoric Man* '[y]ears ago,' he associated Wilson with the Sir Daniel Wilson Residence and his contributions to the growth of the University of Toronto rather than with the scholarship of prehistoric studies. McIlwraith's reading of the century-old review, however, soon 'threw new light on the man himself, and on his reputation through the eyes of a scholarly, though anonymous, reviewer.'[1]

As McIlwraith reflected upon Patterson's lengthy review, he noted that a 'document such as this is the best guide to a realization of the growth of scholarship in the last hundred years... .'[2] McIlwraith was optimistic about Wilson's contribution to anthropology, arguing that he had distinguished himself 'as a scholar, a philosopher, and an original thinker, many of whose predictions have been fulfilled.'[3] Yet Wilson had also inadvertently pointed the way toward the dominant feature of the first century of a formal Canadian anthropology: an overriding concern for 'primitive man.' Fifteen years earlier McIlwraith had noted that the past century of anthropological study had been largely 'limited to the strange habits of strange people—perhaps indulged in by strange people.'[4] However, for much different reasons than Peter Worsley's famous indictment of anthropology in 1966, McIlwraith in 1949 noted that the discipline could not continue on its present course, for, if anthropology was merely the 'study of the way of life of primitive peoples, then its raw material would disappear with the advent of western civilization, and the disappearance of those cultures which we describe as primitive, leaving a basis for no more than theoretical—and perhaps philosophical—comparisons.' Despite this pessimistic prospect, he hoped that the emphasis placed upon 'primitive' peoples was not to be the case for, in his opinion, the 'science of anthropology has progressed beyond a study of primitive peoples.'[5]

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[1] T.F. McIlwraith, 'Sir Daniel Wilson: A Canadian Anthropologist of One Hundred Years Ago,' *Transactions of the Royal Society of Canada* 2 (1964): 129. The reviewer is identified as R.H. Patterson in the *Wellesley Index to Victorian Periodicals*; see page 130, note 1. For a similar remembrance of Wilson in the 1960s, see Trigger, 'Sir Daniel Wilson,' 4.

[2] McIlwraith, 'Sir Daniel Wilson,' 130.

Despite McIlwraith's belief that anthropology had moved beyond the study of the

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[3] McIlwraith, 'Sir Daniel Wilson,' 136. McIlwraith lauded Wilson's insight into issues such as the transmission of culture, the racial diversity of indigenous peoples, hybridity, and the ultimate survival of aboriginal people.

[4] T.F. McIlwraith, 'Anthropological Trends in Canada,' *Canadian Journal of Economics and Political Science* 15, no. 4 (1949): 535.

[5] McIlwraith, 'Anthropological Trends in Canada,' 538-539.

'primitive,' a later generation of scholars was not so optimistic that such progress had been achieved. Although he removes Diamond Jenness from his specific anthropological tradition entirely, Peter Kulchyski argues that Jenness retained a ruthless (and influential) assimilationist approach toward aboriginal peoples right until his death in 1969. Jenness' presentation in 1947 before the special Joint Committee of the Senate and the House of Commons, which was established to review Indian policy and administration, explicitly called for a solution to Canada's 'Indian problem' through an aggressive programme of assimilation.[6] Aboriginal peoples were, in effect, 'primitives' who would be unable to exist in modern society save through their assimilation into the dominant society. In a much different vein, the American anthropologist Leslie White and others attacked Boasian particularism in the 1960s in favour of the study of universal cultural 'laws.' For some critics this trend seemed to mark a return to the nineteenth-century cultural evolutionism of Lewis H. Morgan and other advocates of unilinear development.[7] According to the noted prehistorian, J.V. Wright, White's cultural positivism found some modest expression within the circles of Canadian archaeology through the extended influence of Louis Binford.[8] It was within this context that Peter Worsley prophetically proclaimed that as a result of its dependence upon 'primitive man,' the 'end of anthropology' was near. Thus, as in so many facets of the academy and society, the 1960s was going to be a struggle between polar positions on the fundamental nature of humanity. It is perhaps not surprising that, in some regards at least, this struggle had its roots in a lengthy anthropological tradition.

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[6] Kulchyski, 'Anthropology in the Service of the State,' 21-50.

[7] For brief outlines of this trend, see Paul Erickson with Liam D. Murphy, *A History of Anthropological Theory* (Peterborough: broadview press, 1998), 116-21; Robert Layton, *An Introduction to Theory in Anthropology* (Cambridge: Cambridge University Pres, 1997), 127-28; and Alan Barnard, *History and Theory in Anthropology* Cambridge: Cambridge University Press, 2000), 38-40.

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[8] J.V. Wright, 'The Development of Prehistory in Canada, 1935-1985,' *American Antiquity* 50, no. 2 (1985): 427-28.

Bibliography

Primary Sources

a. Manuscript Collections

American Philosophical Society Library, Philadelphia

i. American Philosophical Society Archives (correspondence)

ii. Robert Bell Papers

iii. Franz Boas Collection of American Indian Linguistics:
- Franz Boas
- Edward Sapir
- James Teit

iv. Franz Boas Professional Papers (correspondence with):

Julia Averkieva
C. Marius Barbeau
Adolf Bastian
Martha Warren Beckwith
Robert Bell
David Boyle
British Columbia, Lt. Governor
R.W. Brock
Daniel Brinton
A.F. Chamberlain
Dan Cranmer
Charles B. Davenport
George M. Dawson
Alexander Goldenweiser
E.A. Goldenweiser
Ernst Haeckel
Horatio Hale
Charles Hill-Tout
George Hunt
Diamond Jenness
William Jones
Francis H. Knowles
W.J. Macdonald
William H. Mechling
Charles F. Newcome
J. Powell
Paul Radin
Edward Sapir
Harland I. Smith
Henry W. Tate
James Teit
Leonie J. Teit
Edward B. Tylor
J.B. Tyrrell
Daniel Wilson

v. Charles B. Davenport Papers

vi. Simon Flexner Professional Papers (correspondence with):
    J.G. Adami
    Helen MacMurchy

vii. Alexander A. Goldenweiser Papers

viii. Elsie C. Parsons Papers (correspondence with):
    Franz Boas
    Alexander Goldenwieser
    Edward Sapir

ix. Paul Radin Papers

x. Frank G. Speck Papers (correspondence with):
    Pliny E. Goddard
    Alexander Goldenwieser
    Edward Sapir

Archives of Ontario, Toronto

Andrew F. Hunter Fonds
Edward F. Wilson Fonds

Blacker-Wood Library of Biology–Rare Book Collection, McGill University

British Association for the Advancement of Science Minute Books

Cambridge University Library, Cambridge UK

A.C. Haddon Papers

Canadian Museum of Civilization, Hull

British Association for the Advancement of Science Manuscripts
Diamond Jenness Correspondence

Edward Sapir Correspondence
Harlan I. Smith Correspondence
Marius Barbeau Correspondence

Glenbow Library and Archives, Calgary

George and John McDougall Family Fonds

McGill University Archives

Dawson Family Papers
William Logan Papers

McGill University, Rare Books and Special Collections

William Logan Correspondence

National Archives of Canada, Ottawa

Herbert Branston Gray Fonds
J. Mackintosh Bell Fonds
Robert Bell Fonds

National Library of Canada, Ottawa

Thomas F. McIlwraith typescript

Royal Ontario Museum, Archives and Library, Toronto

David Boyle Papers

Rush Rhees Library, University of Rochester

Lewis Henry Morgan Collection

Thomas Fisher Rare Book Library, University of Toronto

Thomas Griffith Taylor Papers

Toronto Metropolitan Library

David Boyle Scrapbooks
Daniel Wilson Scrapbooks

United Church of Canada/Victoria University Archives, Toronto

E.M. Burwash Fonds
John Maclean Fonds
Nathanael Burwash Fonds
Samuel Dwight Chown Fonds
Walter E. Prescott Fonds

University of British Columbia, Special Collections and University Archives

Charles Hill-Tout Fonds
Vagabond Club Fonds

University of Pennsylvania Museum of Anthropology and Archaeology, Philadelphia

Edward Sapir Papers

University of Toronto Archives

Robert Bell Papers
John Langton Family Papers
Marinell Ash Papers
Thomas F. McIlwraith Papers

Vancouver City Archives

Major Matthews Collection

b. Printed Primary Materials

Adams, Frank D. 'Sir John William Dawson.' *The Canadian Record of Science* 3, no. 3 (1900): 137-49.

Allen, Frank E. *Evolution in the Balances*. New York: Fleming H. Revell Company, 1926.

Ami, H.M. 'A Brief Biographical Sketch of Sir John William Dawson.' *American Geologist* 26, no. 1 (1900): 1-57.

________. 'The Late George Mercer Dawson.' *The Ottawa Naturalist* 15 (1901): 43-52.

________. 'Bibliography of Dr. George Mercer Dawson.' *The Ottawa Naturalist* 15 (1901): 202-13.

________. 'Bibliography of Dr. George M. Dawson.' *The Canadian Record of Science* 8, no. 8 (1902): 503-16.

'Anthropological Discoveries.' *Saturday Night* 42 (15 January 1927): 11.

'A Review of the Essay No. 5 of "Essays and Reviews,"—"On the Mosaic Cosmogony."' *Christian Guardian* 32 (11 September 1861): 142.

'A Review of the Essay No. 5 of "Essays and Reviews,"—"On the Mosaic Cosmogony."' *Christian Guardian* 32 (18 September 1861): 147.

'A Review of the Essay No. 5 of "Essays and Reviews,"—"On the Mosaic Cosmogony." Letter IV. On the Source and Character of Mr. Goodwin's Education.' *Christian Guardian* 32 (2 October 1861): 157.

Ashe, W.A. 'An Elementary Discussion of the Nebular Hypothesis.' *Transactions of the Literary and Historical Society of Quebec* 19 (1889): 75-109.

'Babylonian Discoveries.' *Presbyterian Witness*, 3 June 1854, 86.

Ballantyne, R.M. *The Prairie Chief, a Tale*. Toronto: Musson, n.d.

Barbeau, Marius. 'Our Indians—Their Disappearance.' *Queen's Quarterly* 38, no. 4 (1931): 691-707.

________. 'Charles Hill-Tout.' *Proceedings of the Royal Society of Canada* 34 (1945): 89-92.

Begg, Alexander. *'Dot it Down;' A Story of Life in the North-West*. Toronto: Hunter, Rose & Company, 1871.

Bell, Charles N. 'Indian Mounds, etc.' *The Toronto Mail*, 4 November 1885, 2.

________. 'Mounds in Manitoba [letter to the editor].' *The American Antiquarian and Oriental Journal* 8, no. 2 (1886): 108-9.

Boas, Franz. 'Museums of Ethnology and their Classification.' *Science* 9, no. 228 (17 June 1887): 587-89.

________. 'Museums of Ethnology and their Classification.' *Science* 9, no. 229 (24 June 1887): 614.

________. 'The Half-Blood Indian. An Anthropometric Study.' *The Popular Science Monthly* 45 (1894):761-70.

________. 'Remarks on a Skull From British Columbia.' *Transactions of the Royal Society of Canada* 1 (1895): 122.

________. 'The Child and Childhood in Folk Thought [letter to the editor].' *Science* 3, no. 72 (15 May 1896): 741-42.

________. 'The History of Anthropology.' *Science* 20, no. 512 (21 October 1904): 510-21.

________. 'Some Principles of Museum Administration.' *Science* 25, no. 650 (14 June 1907): 921-33.

________. 'Ethnological Problems in Canada.' *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 40 (1910): 529-39.

________. *Race, Language and Culture.* New York: The Free Press, 1966 [1940].

________. *Anthropology and Modern Life.* New York: Dover Publications, 1986 [1928].

Boas, Franz, *et al. Anthropology in North America.* New York: G.E. Stechert & Co., 1915.

Bodington, Alice. 'Notes on the Indians of British Columbia.' *The Field Club* no. 7 (1893): 89-92 and 104-7.

Boyle, David. 'The Persistence of Savagery in Civilization.' *Proceedings of the Canadian Institute* 4 (1886): 129-31.

_______. 'Primitive Industries and Working Methods.' *Annual Archæological Report, 1894-95* (1896): 29-33.

________. *Notes on Primitive Man in Ontario.* Toronto: Warwick Bro's & Rutter, 1895.

________. 'Mounds.' *Annual Archæological Report, 1896-97* (1897): 14-67.

________. 'Some Mental and Social Inheritances.' *Journal and Proceedings of the Hamilton Association* 15 (1899): 35-45.

________. 'On the Paganism of the Civilized Iroquois of Ontario.' *Annual Archæological Report, 1901* (1902): 115-25.

________. 'The Philosophy of Folk Lore.' *Annual Archæological Report, 1901* (1902): 125-31.

Brown, Robert. *The Races of Mankind: Being a Popular Description of the Characteristics, Manners and Customs of the Principal Varieties of the Human Family.* 4 vols. London: Cassell, Petter, & Galpin, 1873.

Bryce, George. *Manitoba: Its Infancy, Growth, and Present Condition*. London: Sampson Low, Marston, Searle, & Rivington, 1882.

________. *The Mound Builders*. Manitoba Historical Society Transactions no. 18. Winnipeg: The Historical and Scientific Society of Manitoba, 1885.

________. *A Short History of the Canadian People*. London: Sampson Low, Marston, Searle, & Rivington, 1887.

________. 'The Mound Builders [letter to the editor].' *Toronto Daily Mail*, 13 March 1886, 12.

________. 'The Winnipeg Mound Region: Being the Most Northerly District Where Mounds Have Been Examined on the American Continent [abstract].' *Proceedings of the American Association for the Advancement of Science* 38 (1889): 344-45.

________. *Among the Mound Builders' Remains*. Manitoba Historical Society Transactions no. 66. Winnipeg: The Historical and Scientific Society of Manitoba, 1904.

________. *A Short History of the Canadian People*. Toronto: William Briggs, 1914.

Buchan, J.M. 'Complexion, Climate and Race.' *Proceedings of the Canadian Institute* 2 (1883-1884): 5-26.

Buchanan, Daniel. 'The Fallacy of the Nebular Hypothesis.' *Queen's Quarterly* 23, no. 2 (1915): 151-63.

________. 'The Planetesimal Hypothesis.' *Queen's Quarterly* 24, no. 1 (1916): 1-15.

Butler, William Francis. *Red Cloud; a Tale of the Great Prairie*. London: Burns & Oats, 1882.

Cameron, John. 'Two Remarkable Skulls From the New Hebrides—An Anthropological and Ethnological Study.' *Transactions of the Nova Scotian Institute of Science*, Session of 1917-1918 14, part 4 (Halifax: For the Institute by the Royal Print and Lith. Limited, 1919): 403-31.

Campbell, John. 'On the Origin of Some American Indian Tribes.' *The Canadian Naturalist and Quarterly Journal of Science* 9, no. 2 (1881): 65-80.

________. 'The Descent of Man.' In *Questions of the Day, Lectures Delivered in the David Morice Hall, Montreal in 1883-84*. Montreal: William Drysdale & Co., 1885.

________. 'The Present Position of American Anthropology.' *Transactions of the Royal Society of Canada* 1 (1895): 67-79.

________. 'The Origin of the Haidahs of the Queen Charlotte Islands.' *Transactions of the Royal Society of Canada* 3 (1897): 91-112.

Carmichael, Rev. James. 'Sir John Lubbock and the Religion of Savages.' *The Popular Science Monthly* 48 (December 1895): 220-28.

Chamberlain, Alexander Francis. 'Eskimo and the Indian [letter to the editor].' *Science* 10, no. 252 (2 December 1887): 273-74.

________. *The Child and Childhood in Folk-Thought*. New York: Macmillan and Co., 1896.

________. 'Primitive Nature Study.' *Transactions of the Canadian Institute* 6 (1898-1899): 313-44.

________. *The Child: A Study in the Evolution of Man*. London: Walter Scott, 1901.

________. 'Kootenay Group-Drawings.' *American Anthropologist* 3, no. 2 (1901): 248-56.

________. 'David Boyle.' *American Anthropologist* 13, no. 1 (1911): 159-65.

Chambers, Robert. *Vestiges of the Natural History of Creation and Other Evolutionary Writings*. Edited by James A. Secord. Chicago: University of Chicago Press, 1994.

Chapman, E.J. Review of *Archaia; Or Studies of the Cosmogony and Natural History of the Hebrew Scriptures*, by J.W. Dawson. *The Canadian Journal of Science, Literature and History* 5, no. 25 (1860): 59-62. Signed E.J.C.

'The Claims of the Indian.' *The Toronto Mail*, 23 October 1885, 4.

Claypole, E.W. 'The Development Theory: A Review.' *The Canadian Record of Science* 1, no. 1 (1884-1885): 113-21.

Cole, Douglas and Brad Lockner, ed. *The Journals of G.M. Dawson, 1875-1878*. 2 vols. Vancouver: University of British Columbia Press, 1989.

[Combe, Andrew]. 'Cyclopædia of Practical Medicine.—Dr. Prichard and Phrenology.' *Phrenological Journal* 8, no. 40 (1834): 649-57.

Connor, Ralph. *Corporal Cameron of the Northwest Mounted Police, a Tale of the Macleod Trail*. New York: Hodder & Stoughton, 1912.

________. *The Patrol of the Sun Dance Trail*. Toronto: Westminster, 1914.

Dade, Rev. C. 'Indian Remains.' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 1, no. 1 (1852): 6.

Dall, William H. 'Museums of Ethnology and Their Classification.' *Science* 9, no. 228 (17 June 1887): 587.

Dawson, George Mercer. 'Sketches of the Past and Present Conditions of the Indians of Canada.' *The Canadian Naturalist and Quarterly Journal of Science* 9, no. 3 (1879): 129-59.

________. 'On the Haida Indians of the Queen Charlotte Islands.' In *Geological Survey of Canada. Report of Progress for 1878-79*, 103B-75B. Montreal: Dawson Brothers, 1880.

[Dawson, George Mercer]. 'Pre-Historic Man in France.' *The Canadian Naturalist and Quarterly Journal of Science* 4, no. 1 (1869): 85-89. Signed G.M.D.

Dawson, John William. Review of *On the Origin of Species by Means of Natural Selection*, by Charles Darwin. *The Canadian Naturalist and Geologist.* 5, no. 2 (1860): 100-20. Signed J.W.D.

________. *Archaia; or Studies of the Cosmogany and Natural History of the Hebrew Scriptures*. London: Samson Low, Son & Co., 1860.

________. 'Notes on Aboriginal Antiquities recently discovered in the Island of Montreal.' *The Canadian Naturalist and Geologist* 5, no. 6 (1860): 430-49.

________. 'Additional notes on Aboriginal Antiquities found at Montreal.' *The Canadian Naturalist and Geologist* 6, no. 5 (1861): 362-73.

________. 'On the Antiquity of Man; a Review of "Lyell" and "Wilson."' *Edinburgh New Philosophical Journal* 19, no. 1 (1864): 40-64.

________. 'The Removal and Restoration of Forests.' *The Canadian Naturalist and Geologist* 3, no. 6 (1868): 405-17.

________. 'Modern Ideas of Derivation.' *The Canadian Naturalist and Quarterly Journal of Science* 4, no. 2 (1869): 121-38.

________. *The Story of the Earth and Man*. New York: Harper & Brothers, Publishers, 1874.

________. *The Bible and Science*. London: Richard D. Dickinson, 1875.

________. 'Address of J.W. Dawson [Vice-President's Address].' *Proceedings of the American Association for the Advancement of Science* 24 (1875): 3-26.

________. 'Primitive Man and Revelation.' *Journal of the Transactions of the Victoria Institute* 8 (1874-1875): 59-63.

________. 'New Facts Relating to Eozoon Canadense.' *Proceedings of the American Association for the Advancement of Science* 25 (1876): 231-34.

________. 'The So-Called "Conflict of Religion and Science."' *The Popular Science Monthly* 10 (November 1876): 72-74.

________. *The Origin of the World According to Revelation and Science*. London: Hodder & Stoughton, 1877.

________. 'The Present Rights and Duties of Science.' *The Princeton Review* 2 (1878): 673-96.

________. 'Points of Contact Between Science and Revelation.' *The Princeton Review* 4 (1879): 579-606.

________. 'Haeckel on the Evolution of Man.' *The Princeton Review* 5 (1880): 444-64.

________. 'Address by J.W. Dawson. On Some Unsolved Problems in Geology [President's Address].' *Proceedings of the American Association for the Advancement of Science* 32 (1883): 1-27.

________. 'Address by Sir J. William Dawson [President's Address].' *Report of the British Association for the Advancement of Science* 56 (1886): 3-36.

________. *Fossil Men and Their Modern Representatives: An Attempt to Illustrate the Characters and Conditions of Pre-Historic Men in Europe, By Those of The American Races*. 3rd ed. London: Hodder & Stoughton, 1888 [1880].

________. *The Meeting-Place of Geology and History*. New York: Fleming H. Revell Company, 1894.

Dupuis, N.F. 'Life and Its Distribution. A Speculation.' *Queen's Quarterly* 16, no. 3 (1909): 230-36.

Dutton, Jos. T. 'Mosaic Cosmogony.' *The Christian Guardian* 32 (11 December 1861): 195.

Ellis, J.V. 'President's Address.' *Bulletin of the Natural History Society of New Brunswick* 4, no. 20 (1902): 483-93.

England, Robert. 'British Immigration.' *Queen's Quarterly* 36, no. 1 (1929): 131-144.

'The Fight for Ignorance in Tennessee.' *Saturday Night* 40 (4 July 1925): 2.

Fraser, A.D. 'Our Prehistoric Ancestry.' *The Dalhousie Review* 2, no. 4 (1923): 425-37.

G.A.J.C. 'The Origin of Glacial Drifts [book review].' *Nature* 49, no. 1276 (12 April 1894): 552-53.

Gallatin, Albert. 'Introduction to "Hale's Indians of North-West America, and Vocabularies of North America."' *Transactions of the American Ethnological Society* 2 (1848): xxiii-clxxxviii.

'The Genealogy of Man.' *Science* 60, no. 1545 (1924): supplement, xii.

Gilpin, J. Bernard. 'On the Stone Age in Nova Scotia.' *Proceedings and Transactions of the Nova Scotia Institute of Natural Science* 3 (1874): 220-31.

Good, John Booth. *A Vocabulary and Outlines of Grammar on the Nitlakapamuk or Thompson Tongue, (The Indian language spoken between Yale, Lillooet, Cache Creek and Nicola Lake.) Together with a Phonetic Chinook Dictionary, Adapted for use in the Province of British Columbia*. Victoria, BC: St. Paul's Mission Press, 1880.

Gossip, William. 'On the Antiquity of Man in America.' *Proceedings and Transactions of the Nova Scotian Institute of Natural Science* 2 (1867-1868-1869-1870): 35-77.

Gunn, Donald. 'Indian Remains Near Red River Settlement, Hudson's Bay Territory.' *Annual Report of the Board of Regents of the Smithsonian Institution, 1867* (1868): 399-400.

Haddon, A.C. 'A Plea for a Bureau of Ethnology for the British Empire.' *Nature* 56, no. 1459 (14 October 1897): 574-75.

________. 'The Anthropological Survey of Canada.' *Nature* 88, no. 2209 (29 February 1912): 597-98.

Hale, Horatio. *Indian Migrations as Evidenced by Language: Comprising the Huron-Cherokee Stock: the Dakota Stock: the Algonkins: the Chahta-Muskoki Stock: the Moundbuilders: the Iberians*. Chicago: Jameson & Morse, 1883. Reprinted from the *American Antiquarian* (January and April 1883).

________. 'On Some Doubtful or Intermediate Articulations: An Experiment in Phonetics.' *Journal of the Anthropological Institute* (February 1885): 233-43.

________. 'The Origin of Languages and the Antiquity of Speaking Man.' *Proceedings of the American Association for the Advancement of Science* 35 (1886): 3-47.

________. 'McLennan's Studies in Ancient History.' *Science* 8 (17 December 1886): 569-70.

________. 'Race and Language.' *The Popular Science Monthly* 32 (January 1888): 340-51.

________. 'The Development of Language.' *Proceedings of the Canadian Institute* 6 (1887-1888): 92-134.

________. *Was America Peopled from Polynesia? A Study in Comparative Philology.* Berlin, ON: H.S. Hermann, 1890.

________. 'A Lawgiver of the Stone Age.' *Proceedings of the American Association for the Advancement of Science* 40 (1891): 324-41.

________. 'Language as a Test of Mental Capacity.' *Transactions of the Royal Society of Canada* 9 (1891): 77-112.

________. 'Sketch of Sir Daniel Wilson.' *The Popular Science Monthly* 44, no. 2 (1893-1894): 256-65.

________. 'Man and Language; or, the True Basis of Anthropology.' *American Antiquarian and Oriental Journal* 15, no. 1 (1893): 15-24.

________. 'Man and Language; or, the True Basis of Anthropology.' *American Antiquarian and Oriental Journal* 15, no. 2 (1893): 79-89.

________. 'Man and Language; or, the True Basis of Anthropology.' *American Antiquarian and Oriental Journal* 15, no. 3 (1893): 133-45.

________. 'Man and Language; or, the True Basis of Anthropology.' *American Antiquarian and Oriental Journal* 15, no. 4 (1893): 212-23.

________. *The Iroquois Book of Rites*. Toronto: University of Toronto Press, 1963 [1883].

Harrington, Bernard J. 'George Mercer Dawson.' *The Canadian Record of Science* 8, no. 7 (1902): 413-25.

Harris, W.R. 'Primitive Civilization of the American Indian.' *Annual Archæological Report, 1913* (1913): 23-33.

________. 'The Ape Man.' *Annual Archæological Report, 1916* (1916): 49-62.

________. 'Earth's First Man.' *Annual Archæological Report, 1917* (1917): 59-77.

Hart, C.W.M. 'Social Evolution and Modern Anthropology.' In *Essays in Political Economy in Honour of E.J. Urwick*, ed. H.A. Innis, 99-116. Toronto: University of Toronto Press, 1938.

_______. 'The Race Myth.' *The University of Toronto Quarterly* 11, no. 1 (1941-1942): 180-88.

Harvey, Arthur. 'Record of an Extinct Race.' *The New Dominion Monthly* 9 (July 1871): 11-14.

________. 'Bone Caves—With Especial Reference to Pre-Historic Man.' *Transactions of the Canadian Institute* 2 (1890-1891): 116-20.

Harvey, M. 'The Monuments of Egypt as Illustrative of Scripture.' *Presbyterian Witness*, 17 February 1855, 25.

________. 'The Monuments of Egypt as Illustrative of Scripture.' *Presbyterian Witness*, 24 February 1855, 29.

Hibben, Frank C. 'The First Canadian' *Maclean's Magazine* 59 (1 October 1946): 13, 69-71.

Hill-Tout, Charles. 'The Study of Language.' *Proceedings of the Canadian Institute* 5 (1886-1887): 165-73.

________. 'Later Prehistoric Man in British Columbia.' *Transactions of the Royal Society of Canada* 1 (1895): 103-22.

________. 'Notes on the Cosmogony and History of the Squamish Indians of British Columbia.' *Transactions of the Royal Society of Canada* 3 (1897): 85-90.

________. 'Notes of the Prehistoric Races of British Columbia and Their Monuments.' *British Columbia Mining Record, Supplement* (Christmas, 1899): 6-23.

________. 'The Origin of the Totemism of the Aborigines of British Columbia.' *Transactions of the Royal Society of Canada* 7 (1901): 3-15.

________. 'The Phylogeny of Man From a New Angle.' *Transactions of the Royal Society of Canada* 15 (1921): 47-83.

________. 'Recent Discoveries and New Trends in Anthropology.' *Transactions of the Royal Society of Canada* 17 (1923): 1-27.

________. 'Is There a Fundamental Difference in Racial Aptitudes and Capacities, and Does the Mind of the Savage Differ Essentially From That of the Savant?' Vancouver Art, Historical and Scientific Association, *Museum and Art Notes* (December 1929): 149-57.

________. 'Recent Developments in Anthropology.' Vancouver Art, Historical and Scientific Association, *Museum and Art Notes* (March 1931): 14-22.

________. *The Salish People. The Local Contribution of Charles Hill-Tout.* 4 vols. Ed. Ralph Maud. Vancouver: Talonbooks, 1978.

Hind, Henry Youle. *Narrative of the Canadian Red River Exploring Expedition of 1857 and of the Assinniboine and Saskatchewan Exploring Expedition of 1858.* 2 vols. New York: Greenwood Press, 1969 [1860].

[Hind, H.Y.?] Review of *Prehistoric Man: Researches into the Origins of Civilisation in the Old and New Worlds*, by Daniel Wilson. *The British American Magazine Devoted to Literature, Science, and Art* 1 (May 1863): 92-99.

[Hind, H.Y.?] Review of *God's Glory in the Heavens*, by William Leitch. *The British American Magazine Devoted to Literature, Science, and Art* 1 (July 1863): 308-16.

Hirschfelder, C.A. 'Ancient Earth-Works in Ontario.' *American Antiquarian and Oriental Journal* 15, no. 1 (1893): 42-45.

Honeyman, David. *Giants and Pigmies: (Geological) Earth's Order of Formation and Life, and Harmony of the Two Records.* Halifax: Museum and Booksellers, 1887.

Howley, James P. *The Beothucks or Red Indians. The Aboriginal Inhabitants of Newfoundland.* Toronto: Prospero, 2000 [1915].

Hunter, A.F. 'Bibliography of the Archæology of Ontario.' In *Annual Archæological Report, 1896-1897* (1897): 98-116.

________. 'The Rice Lake and Innisfil Mounds.' In *Annual Archæological Report, 1896-1897* (1897): 67-97.

________. 'Bibliography of the Archæology of Ontario.' In *Annual Archæological Report, 1897-1898* (1898): 67-87.

________. 'The Semi-Centennial of "Prehistoric Man."' *The University Monthly* 13 (1912-1913): 12-20.

Hurd, W. Burton. 'The Case for a Quota.' *Queen's Quarterly* 36, no. 1 (1929): 145-59.

'The Indians.' *The Toronto Mail*, 4 November 1885, 4 and 21 November 1885, 6.

'Indian Antiquities.' *The Toronto Mail*, 23 November 1885, 8.

Jenness, Diamond. 'Indian Prehistory as Revealed by Archaeology.' *The University of Toronto Quarterly* 1, no. 2 (1931-1932): 164-82.

________. 'Fifty Years of Archaeology in Canada.' In *The Royal Society of Canada: Fifty Years Retrospect. Anniversary Volume, 1882-1932*, 71-76. Toronto: The Ryerson Press, ca. 1932.

________. 'The Prehistory of the Canadian Indians.' In *Custom is King: Essays Presented to R.R. Marett on his Seventieth Birthday*, ed. L.H. Dudley Buxton, 63-84. London: Hutchinson's Scientific and Technical Publications, 1936.

________. *The Indians of Canada*. 5th ed. Ottawa: National Museum of Canada, 1960 [1932].

[Kearney, L.C.] 'An Old Letter About the Origins of the Indians.' *Archæological Report 1899* (1900): 164-65.

Knight, A.P. 'The Structure of Man—An Index of His Past History.' *Queen's Quarterly* 4 (1897): 209-217.

________. 'Archaeology and Apologetics.' *Queen's Quarterly* 18, no. 3 (1911): 204-22.

Langton, H.H. *Sir Daniel Wilson: a Memoir*. Toronto: Thomas Nelson & Sons, 1929.

'The Late Principal Leitch.' *The Canadian Naturalist and Geologist* [Kingston News] 1, no. 3 (1864): 237-38.

Leechman, Douglas. 'Harlan Ingersoll Smith, 1872-1940.' *Canadian Field Naturalist* 56 (1942): 114.

Le Vaux, Victor. 'The Antiquity of Man.' *The New Dominion Monthly* 3, no. 6 (March 1869): 340-341.

Lewis, T.H. 'Mounds on the Red River of the North [letter to the editor].' *The American Antiquarian and Oriental Journal* 8, no. 6 (1886): 369-71.

Lloyd, T.G.B. 'On the "Beothucs," a Tribe of Red Indians, Supposed to be Extinct, Which Formerly Inhabited Newfoundland.' *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 4 (1874-1875): 21-39.

[Lubbock, John]. Review of *Prehistoric Man: Researches into the Origin of Civilisation in the Old and New World*, by Daniel Wilson. *Natural History Review* 9 (1863): 26-30.

Lubbock, John. *Pre-historic Times, as Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages*. 2nd ed. London: Williams and Norgate, 1869 [1865].

________. 'On the Origin of Civilization and the Early Condition of Man.' *Report of the British Association for the Advancement of Science* 37 (1868): 118-25.

________. 'On the Origin of Civilization and the Primitive Condition of Man – Part II.' *Report of the British Association for the Advancement of Science* 39 (1870): 137-51.

________. *The Origin of Civilisation and the Primitive Condition of Man*. Chicago: University of Chicago Press, 1978 [1870].

MacGillivray, M. 'The Men of the Ages of Stone.' *Queen's Quarterly* 25, no. 3 (1918): 250-61.

Maclean, John [or John Mclean]. 'The Half-Breed and Indian Insurrection.' *The Canadian Methodist Magazine* 22, no. 2 (1885): 172-176.

________. 'Language and Religion.' *Transactions of the Canadian Institute* 6 (1898-1899): 324-341.

________. *The Indians of Canada: Their Manners and Customs*. Toronto: William Briggs, 1889; rpt: Toronto: Coles Publishing Company, 1970.

Marett, R.R. *Anthropology*. London: H. Holt, 1912.

Mason, O.T. 'The Occurrence of Similar Inventions in Areas Widely Apart.' *Science* 9, no. 226 (3 June 1887): 534-35.

Mather, Kirtley F. 'The Life of Pre-Cambrian Times.' *Queen's Quarterly*. 23, no. 3 (1916): 302-12.

Matthew, G.F. 'Discoveries at a Village of the Stone Age at Bocabec, N.B.' *Bulletin of the Natural History Society of New Brunswick* 3 (1884): 6-29.

Matthew, W.D. *Outline and General Principles of the History of Life*. New York: Arno Press, 1980 [1928].

McCharles, A. 'The Mound-Builders of Manitoba.' *American Journal of Archaeology* 3, no. 1 (1887): 70-74.

McDougall, John. *'Wa-pee Moos-tooch' or 'White Buffalo:' the Hero of a Hundred Battles*. Toronto: n.p., 1898.

McIlwraith, Thomas F. 'The Progress of Anthropology in Canada.' *Canadian Historical Review* 11, no. 2 (1930): 132-50.

________. 'Anthropological Trends in Canada.' *Canadian Journal of Economics and Political Science* 15, no. 4 (1949): 533-39.

________. *On Race and Culture. An Address Delivered at Founders' Day, 1951, in Commemoration of the Founding of the University in 1800*. Fredericton, n.d.: n.p., 1951.

________. 'Sir Daniel Wilson: A Canadian Anthropologist of One Hundred Years Ago.' *Transactions of the Royal Society of Canada* 2 (1964): 129-36.

________. *The Bella Coola Indians*, ed. and introduced by John Barker. 2 vols. Toronto: University of Toronto Press, 1992 [1948].

'Miscegenation.' *The Anthropological Review* 2 (May 1864): 116-21.

Mitchell, George Winter. 'Pitfalls in Anthropology.' *Queen's Quarterly*. 26, no. 4 (1919): 394-401.

'Modern Science.' *The Toronto Mail*, 17 October 1885, 6.

'Monkeyville in England. Evolution Controversies of Other Days Across the Sea.' *Saturday Night* 40 (22 August 1925): 3.

Montgomery, Henry. 'Prehistoric Man in Manitoba and Saskatchewan.' *American Anthropologist* 10, no. 1 (1908): 33-40.

________. '"Calf Mountain" Mound in Manitoba.' *American Anthropologist* 12, no. 1 (1910): 49-57.

________. 'Recent Archæological Investigations in Ontario.' *Transactions of the Canadian Institute* 9, no. 20 (1910): 1-12.

Morice, A.G. 'The Use and Abuse of Philology.' *Transactions of the Canadian Institute* 6 (1898-1899): 84-100.

Morton, Samuel G. *Crania Americana; or, a Comparative View of the Skulls of Various Aboriginal Nations of North and South America: to which is prefixed an Essay on the Varieties of the Human Species*. Philadelphia: John Pennington, 1839.

________. 'Observations on the Size of the Brain in Various Races and Families of Man.' *Proceedings of the Academy of Natural Sciences Philadelphia* 4 (1849): 221-24.

'The Mounds in Manitoba.' *The Toronto Mail*, 21 September 1885, 4.

Müller, Georgina Max, ed. *The Life and Letters of the Right Honourable Friedrich Max Müller*. 2 vols. London: Longmans, Green, and Co., 1902.

Müller, Max. 'Lectures on Mr. Darwin's Philosophy of Language.' *Fraser's Magazine* 8, no. 43 (1873): 1-24.

Murray, John Clark. 'Human Progress.' *The University Magazine* 11 (February, 1912): 156-69.

'*Notes of the Post-pliocene Geology of Canada* [book review].' *Nature* 7 (30 January 1873): 240-41.

Orchard, W.J. *The Stone Age on the Prairies*. Regina: School Aids and Text Book Publishing Co., 1942.

[Orr, Rowland B.] 'Dr. David Boyle' *Annual Archæological Report, 1911 Including 1908-9-10* (1911): 7-8.

[Orr, Rowland B.] 'Archæology in the Province of Ontario.' *Annual Archæological Report, 1911 Including 1908-9-10* (1911): 8-9.

Patterson, George. 'The Stone Age in Nova Scotia, as Illustrated by a Collection of Relics Presented to Dalhousie College. — By the Rev. George Patterson, D.D., New Glasgow.' *Proceedings and Transactions of the Nova Scotian Institute of Natural Science* 7 (1890): 231-52.

[Patterson, R.H.]. 'Wilson's *Prehistoric Man.*' *The North British Review* 39, no. 77 (1863): 29-61.

'Pedigree and Relationship of Man [book review].' *Nature* 9 (8 January 1874): 180-81.

[Peet, Stephen D.] 'The Old and the New at the World's Fair.' *The American Antiquarian and Oriental Journal* 15, no. 4 (1893): 247-51.

________. 'The Advance of Anthropology.' *The American Antiquarian and Oriental Journal* 15, no. 5 (1893): 311-14.

Philolithos. 'A Review of the Essay No. 5 ... Mr. Goodwin's Ignorance of Geology.' *Christian Guardian* 32 (25 September 1861): 151.

________.'A Review of the Essay No. 5 ... Mr. Goodwin's Creed.' *Christian Guardian* 32 (16 October 1861): 163.

Powell, J.W. 'Museums of Ethnology and Their Classification.' *Science* 9, no. 229 (24 June 1887): 612-14.

'Pre-Historic Canada.' *Canadian Illustrated News*, 20 January 1877, 39.

'Prehistoric Times.' *The Toronto Mail*, 14 September 1885, 4.

'Primitive Man.' *Nature* 22 (27 May 1880): 82-86.

Pursey, G.G. 'A Nebular Theory of Creation.' *Transactions of the Canadian Institute* 8 (1910): 451-59.

Pycraft, W.P. 'Concerning Prehistoric Man.' *Saturday Night* 40 (22 August 1925): 5.

Read, C.H. 'An Imperial Bureau of Ethnology.' *Report of the British Association for the Advancement of Science* 66 (1896): 928.

Reade, John. 'The Half-Breed.' *Transactions of the Royal Society of Canada* 3 (1885): 1-21.

Reid, A.P. 'The Mixed or "Halfbreed" Races of North-Western Canada.' *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 4 (1874-1875): 45-51.

Review of *Ancient Society*, by Lewis H. Morgan. *The Canadian Monthly and National Review* 13, no. 5 (1878): 494-99.

Review of *Archaia; or Studies of the Cosmogony and Natural History of the Hebrew Scriptures*, by J.W. Dawson. *American Journal of Science* 79, no. 85 (1860): 146.

Review of *Fossil Men and Their Modern Representatives*, by J.W. Dawson. *The American Naturalist* 15 (1881): 154-55.

Review of *Fossil Men and Their Modern Representatives*, by J.W. Dawson. *The American Antiquarian and Oriental Journal* 10, no. 3 (1888): 195-197.

Review of *Nature and the Bible*, by J.W. Dawson. *The Canadian Monthly and National Review* 7, no. 6 (1875): 551-53.

Review of *On the Phenomena of Hybridity*, by Paul Broca. *The Anthropological Review* 2 (August 1864): 164-73.

Review of *Pre-Historic Times, as Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages*, by John Lubbock. *The Canadian Monthly and National Review* 2, no. 3 (1872): 284-85.

Review of *Prehistoric Man: Researches into the Origin of Civilization in the Old and New Worlds*, by Daniel Wilson. *The British American Magazine* 1 (May 1863): 92-99.

Review of *The Canadian Ice Age*, by J.W. Dawson. *The American Naturalist* 28 (1894): 254-55.

Review of *The Lost Atlantis, etc.*, by Daniel Wilson. *The American Antiquarian and Oriental Journal* 15, no. 1 (1893): 61-62.

Review of *The Story of Earth and Man*, by J.W. Dawson. *The Canadian Monthly and National Review* 3, no. 5 (1873): 454-55.

Roberts, Charles G.D. *In the Morning of Time*. New York: Frederick A. Stokes Company, 1922.

Robinson, Carl. 'The Reconstruction of the Prehistoric Skulls of the Lower Mainland of British Columbia.' *Transactions of the Royal Society of Canada* 29 (1935): 225-29.

Sapir, Edward. 'The Work of the Division of Anthropology of the Dominion Government.' *Queen's Quarterly* 20, no. 1 (1912): 60-69.

Schultz, Dr. John Christian. 'The Mound Builders of the West.' *The Canadian Naturalist and Quarterly Journal of Science* 9, no. 1 (1881): 60-62.

S.E.D. [Samuel Edward Dawson]. 'Nature and the Bible.' *The Canadian Naturalist and Quarterly Journal of Science* 8, no. 1 (1878): 47-54.

Seeley, Sylvia. 'Prehistoric Adventures: The Work of a Canadian School in France.' *Canadian Geographical Journal* 1, no. 2 (1930): 176-84.

Smith, Harlan I. 'Antiquity at the World's Fair.' *American Antiquarian and Oriental Journal* 14, no. 5 (1892): 289-92.

________. 'Man and His Works.' *American Antiquarian and Oriental Journal* 15, no. 1 (1893): 115-17.

________. 'The Natural History Museums of British Columbia.' *Science* 8, no. 201 (4 November 1898): 619-20.

________. 'Archaeology of Lytton, British Columbia.' *Memoirs of the American Museum of Natural History* 2, part 3 (1899): 129-61; *Publications of the Jesup North Pacific Expedition* 1, part 3 (1899): 129-61.

________. 'Archaeology of the Thompson River Region, British Columbia.' *Memoirs of the American Museum of Natural History* 2, part 6 (1900): 401-42; *Publications of the Jesup North Pacific Expedition* 1, part 6 (1900): 401-42.

________. 'Shell-Heaps of the Lower Fraser River, British Columbia.' *Memoirs of the American Museum of Natural History* 4, part 4 (1903): 133-91; *Publications of the Jesup North Pacific Expedition* 2, part 4 (1903): 133-91.

________. 'Archaeology of the Gulf of Georgia and Puget Sound.' *Memoirs of the American Museum of Natural History* 4, part 6 (1907): 301-441; *Publications of the Jesup North Pacific Expedition* 2, part 6 (1907): 301-441.

________. 'Archæological Evidence as Determined by Method and Selection.' In *Annual Archæological Report 1911, Including 1908-9-10* (1911): 90-92.

________. 'The Work of Museums in War Time.' *The Scientific Monthly* 6 (April 1918): 362-78.

________. 'The Work of Museums in War Time—II.' *The Scientific Monthly* 6 (May 1918): 417-30.

________. 'Trephined Aboriginal Skulls From British Columbia and Washington.' *American Journal of Physical Anthropology* 7, no. 4 (1924): 445-52.

________. 'Kitchen-Middens of the Pacific Coast of Canada.' *National Museum of Canada Annual Report for 1927* Bulletin no. 56. Ottawa: F.A. Acland, 1929.

Smith, Harlan I. and Gerard Fowke. 'Cairns of British Columbia and Washington.' *Memoirs of the American Museum of Natural History* 4, part 2 (1901): 55-75; *Publications of the Jesup North Pacific Expedition* 2, part 2 (1901): 55-75.

Smith, Marian W. Review of *The Bella Coola Indians*, by T.F. McIlwraith. *Canadian Journal of Economics and Political Science* 15, no. 4 (1949): 560-62.

[Smith, W.H.] 'Wilson's Prehistoric Man.' *Blackwood's Edinburgh Magazine* 93, no. 571 (1863): 525-44.

Smyth, William J. 'The Mound-Builders.' *The Canadian Record of Science* 2, no. 1 (1886): 77-93.

Squier, E.G. and E.H. Davis. *Ancient Monuments of the Mississippi Valley; Comprising the Results of Extensive Original Surveys and Explorations*. Smithsonian Contributions to Knowledge no. 1. New York: Johnson Reprint Corporation [1848].

Starr, Frederick. 'Anthropological Work in America.' *The Popular Science Monthly* 41 (July 1892): 289-307.

Sutherland, J.C. 'Sir William Dawson and Evolution.' *Queen's Quarterly* 17, no. 3 (1910): 212-17.

Taverner, P.A. 'German Biology.' *The Ottawa Naturalist* 32 (October 1918): 75.

Thomson, James Park. 'Notes on the Natives of Australia.' *Queen's Quarterly* 12, no. 1 (1904): 1-15.

Tocque, P. 'The Red Indians, or Beothicks of Newfoundland.' *The New Dominion Monthly* 5 (September 1869): 1-7.

Tylor, Edward B. 'Prehistoric Times [review of *Pre-historic Times*, by John Lubbock].' *Nature* 1 (25 November 1869): 103-5.

________. 'Wilson's "Prehistoric Man."' *Nature* 14 (25 May 1876): 65-66.

Van Courtland, Edward. 'Notice of an Indian Burying Ground.' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 1, no. 7 (1853): 161.

'What the Dayton Trial Really Means.' *Saturday Night* 40 (18 July 1925): 11.

Whittlesey, Charles. 'The Ancient Miners of Lake Superior.' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* [Annals of Science, Cleveland] 1, no. 4 (1852): 106-8.

Wigmore, Annie. *Dreams of the First and Twentieth Century*. Toronto: Hunter, Rose Co., 1898.

Wilson, Daniel. 'Remarks on the Intrusion of the Germanic Races on the Area of the Older Keltic Races of Germany.' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 2, no. 10 (1854): 246-50.

________. 'Hints for the Formation of a Canadian Collection of Ancient Crania.' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 3, no. 15 (1855): 345-47.

________. 'Crania of Ancient Britons.' *The Canadian Journal of Science, Literature and History* 1, no. 5 (1856): 484-86.

________. 'Discovery of Indian Remains, County Norfolk, Canada West.' *The Canadian Journal of Science, Literature and History* 1, no. 6 (1856): 511-19.

________. Review of *Indigenous Races of the Earth...*, by J.C. Nott and George R. Gliddon. *The Canadian Journal of Science, Literature and History* 2, no. 9 (1857): 208-16. Signed D.W.

________. 'On the Supposed Uniformity of Cranial Type, throughout All Varieties of the American Race.' *Proceedings of the American Association for the Advancement of Science* 11 (1857): 109-27.

________. 'Supposed Prevalence of One Cranial Type throughout the American Aborigines.' *The Canadian Journal of Science, Literature and History* 2, no. 12 (1857): 406-35.

________. 'On the Supposed Prevalence of One Type throughout the American Aborigines.' *Edinburgh New Philosophical Journal* 7 (1858): 1-32.

________. 'The President's Address.' *The Canadian Journal of Science, Literature and History* 5, no. 26 (1860): 109-27.

________. 'Science in Rupert's Land.' *The Canadian Journal of Science, Literature and History* 7, no. 40 (1862): 336-47.

________. 'Indications of Ancient Customs, Suggested by Certain Cranial Forms.' *The British American Magazine* 1 (September 1863): 449-60.

________. 'Physical Ethnology.' *Annual Report of the Board of Regents of the Smithsonian Institute for 1862* (1863): 240-302.

________. *Prehistoric Annals of Scotland.* 2nd ed. 2 vols. London: MacMillan and Co., 1863 [1851].

________. 'Inquiry into the Physical Characteristics of the Ancient and Modern Celt of Gaul and Britain.' *The Anthropological Review* 3, no. 8 (1865): 52-84.

________. 'Race Head-Forms and Their Expression by Measurements.' *The Canadian Journal of Science, Literature and History* 12, no. 70 (1869): 269-303.

________. 'Hybridity and Absorption in Relation to the Red Indian Race.' *The Canadian Journal of Science, Literature and History* 14, no. 88 (1875): 432-66.

________. *Prehistoric Man: Researches into the Origin of Civilization in the Old and New World.* 2 vols. 3rd ed. London: Macmillan and Co., 1876 [1862].

________. 'An Address before the American Association for the Advancement of Science.' *Proceedings of the American Association for the Advancement of Science* 26 (1877): 319-34.

________. *Some American Illustrations of the Evolution of New Varieties of Man.* London: Harrison and Sons, n.d. Reprinted from the *Journal of the Anthropological Institute* 8 (May 1879): 338-59.

________. 'Some Physical Characteristics of Native Tribes of Canada.' *Proceedings of the American Association for the Advancement of Science* 31 (1882): 531-58.

________. 'The Book of Nature.' *The Canada Educational Monthly and School Magazine* 12 (February 1890): 41-44.

________. *The Right Hand: Left-Handedness*. London: Macmillan and Co., 1891.

________. *The Lost Atlantis and Other Ethnographic Studies*. New York: Macmillan and Co., 1892.

[Wilson, Daniel]. 'The Unity of the Human Race.' *The Canadian Journal, a Repertory of Industry, Science and Art and a Record of the Proceedings of the Canadian Institute* 3, no. 10 (1855): 229-31.

Wilson, Daniel and E.B. Tylor. *Anthropology and Archæology*. New York: The Humboldt Publishing Company, 1885.

Wintemberg, W.J. 'Harlan Ingersoll Smith.' *American Antiquity* 6, no. 1 (1940): 63-64.

Withrow, W.H. 'The Mound-Builders.' *The Canadian Methodist Magazine* 2 (October 1875): 359-62.

WJM [William J McGee]. 'George Mercer Dawson.' *American Anthropologist* 3, no. 1 (1901): 158-63.

Wright, Henry Wilkes. *Faith Justified by Progress*. New York: Charles Scribner's Sons, 1916.

Wright, R. Ramsey. 'Haeckel's "Anthropogenie."' *The Canadian Journal of Science, Literature and History* 15, no. 92 (1876): 231-48.

Wright, William. 'The "Missing Link". Has it Really Been Discovered?' *Saturday Night* 40 (21 March 1925): 2.

Wyman, Jeffreys. 'Primitive Man.' *The American Naturalist* 10 (May 1876): 278-82.

Young, Egerton Ryerson. *Stories From Indian Wigwams and Northern Campfires*. Toronto: Coles Publishing Company, 1974 [1893].

________. *Children of the Forest; a Story of Indian Love*. New York: F.H. Revell, 1904.

B. Secondary Sources

a. Monographs and Articles

Adams, John Coldwell. *Sir Charles God Damn: The Life of Sir Charles G.D. Roberts.* Toronto: University of Toronto Press, 1986.

Allen, John S. 'Franz Boas's Physical Anthropology: The Critique of Racial Formalism Revisited.' *Current Anthropology* 30, no. 1 (1989): 79-84.

Ames, Michael and Richard Preston. 'Introduction [to a colloquium on the History of Anthropology in Canada].' *Canadian Review of Sociology and Anthropology* 12, no. 3 (1975): 243.

Armour, Leslie and Elizabeth Trott. *The Faces of Reason: An Essay on Philosophy and Culture in English Canada 1850-1950.* Waterloo: Wilfrid Laurier University Press, 1981.

Avrith-Wakeam, Gail. 'George Dawson, Franz Boas and the Origins of Professional Anthropology in Canada.' *Scientia Canadensis* 17, no. 1&2 (1994): 185-203.

Baker, Lee D. *From Savage to Negro: Anthropology and the Construction of Race, 1896-1954.* Berkeley: University of California Press, 1998.

Barkan, Elazar. *The Retreat of Scientific Racism: Changing Concepts of Race in Britain and the United States Between the Wars.* Cambridge: Cambridge University Press, 1992.

Barker, Eileen. 'In the Beginning: The Battle of Creationist Science Against Evolutionism.' In *On the Margins of Science: The Social Construction of Rejected Knowledge*, ed. Roy Wallis, 179-200. Keele: University of Keele Press, 1979.

Barker, John. 'T.F. McIlwraith and Anthropology at the University of Toronto 1925-1963.' *Canadian Review of Sociology and Anthropology* 24, no. 2 (1987): 252-68.

Barkhouse, Joyce. *George Dawson: the Little Giant*. Toronto: Clarke, Irwin & Company, ca. 1974.

Barnard, Alan. *History and Theory in Anthropology*. Cambridge: Cambridge University Press, 2000.

Beattie, Owen B. 'A Note on Early Cranial Studies from the Gulf of Georgia Region: Long-heads, Broad-heads, and the Myth of Migration.' *BC Studies* no. 66 (Summer 1985): 28-36.

Berger, Carl. *The Sense of Power: Studies in the Ideas of Canadian Imperialism, 1867-1914*. Toronto: University of Toronto Press, 1970.

________. *Science, God, and Nature in Victorian Canada*. Toronto: University of Toronto Press, 1983.

________. 'Wilson, Sir Daniel.' *Dictionary of Canadian Biography*. Toronto: University of Toronto, 1990. Vol. 12: 1109-14.

________. *Honour and the Search for Influence: A History of the Royal Society of Canada*. Toronto: University of Toronto Press, 1996.

Berkhofer, Robert. *The White Man's Indian: Images of the American Indian from Columbus to the Present*. New York: Alfred A. Knopf, 1978.

Berry, William B.N. *Growth of a Prehistoric Time Scale*. 2nd ed. San Francisco: W.H. Freeman and Company, 1987.

Bieder, Robert. 'Albert Gallatin and the Survival of Enlightenment Thought in Nineteenth-Century Anthropology.' In *Toward a Science of Man: Essays in the History of Anthropology*, ed. Timothy H.H. Thoresen, 91-98. The Hague: Mouton Publishers, 1975.

________. 'Scientific Attitudes Toward Indian Mixed-Bloods in Early Nineteenth Century America.' *Journal of Ethnic Studies* 8, no. 2 (1980): 17-30.

________. *Science Encounters the Indian: The Early Years of American Ethnology.* Norman: The University of Oklahoma Press, 1986.

________. 'The Collecting of Bones for Anthropological Narratives.' *American Indian Culture and Research Journal* 16, no. 2 (1992): 21-35.

Blakeslee, Donald J. 'John Rowzxe Peyton and the Myth of the Mound Builders.' *American Antiquity* 52, no. 4 (1987): 784-92.

Bowen, Desmond. *The Idea of the Victorian Church: A Study of the Church of England 1833-1889.* Montreal: McGill University Press, 1968.

Bowler, Peter J. *Fossils and Progress: Paleontology and the Idea of Progressive Evolution in the Nineteenth Century.* New York: Science History Publications, 1976.

________. 'Darwinism and the Argument from Design: Suggestions for a Reevaluation.' *Journal of the History of Biology* 10, no. 1 (1977): 29-43.

________. *Theories of Human Evolution: A Century of Debate, 1844-1944.* Baltimore: The Johns Hopkins University Press, 1986.

________. *The Non-Darwinian Revolution: Reinterpreting a Historical Myth.* Baltimore: The Johns Hopkins University Press, 1988.

________. *Evolution: The History of an Idea.* Rev. ed. Berkeley: University of California Press, 1989 [1983].

________. *The Invention of Progress: The Victorians and the Past.* Oxford: Basil Blackwell, 1989.

________. 'Darwinism and Modernism: Genetics, Palaeontology, and the Challenge to Progressionism, 1880-1930.' In *Modernist Impulses in the Human Sciences 1870-1930*, ed. Dorothy Ross, 236-54. Baltimore: The Johns Hopkins University Press, 1994.

________. *Life's Splendid Drama: Evolutionary Biology and the Reconstruction of Life's Ancestry, 1860-1940*. Chicago: University of Chicago Press, 1996.

Bozeman, Theodore Dwight. *Protestants in an Age of Science: The Baconian Ideal and Antebellum American Thought*. Chapel Hill: University of North Carolina Press, 1977.

Brace, C. Loring. 'The Fate of the "Classic" Neanderthals: A Consideration of Hominid Catastrophism.' *Current Anthropology* 5, no. 1 (1964): 3-43.

Bravo, Michael T. 'Ethnological Encounters.' In *Cultures of Natural History*, ed. N. Jardine, J.A. Secord and E.C. Spary, 338-57. Cambridge: Cambridge University Press, 1996

Brooke, J.H. 'Natural Theology and the Plurality of Worlds: Observations on the Brewster-Whewell Debate.' *Annals of Science* 34 (1977): 221-86.

________. 'Nebular Contraction and the Expansion of Naturalism [review essay].' *British Journal for the History of Science* 12 (1979): 200-11.

________. 'The Natural Theology of the Geologists: Some Theological Strata.' In *Images of the Earth: Essays in the History of the Environmental Sciences*, ed. L.J. Jordanova and Roy S. Porter, 39-64. Chalfont St Giles: The British Society for the History of Science, 1979.

Browne, Janet. *Charles Darwin: Voyaging*. Princeton: Princeton University Press, 1995.

Brush, Stephen G. 'The Nebular Hypothesis and the Evolutionary World View,' *History of Science* 25, no. 3 (1987): 245-78.

Bryson, Gladys. *Man and Society: The Scottish Inquiry of the Eighteenth Century*. New York: Augustus M. Kelley Publishers, 1968.

Buckley, J.H. *The Triumph of Time*. Cambridge: Cambridge University Press, 1966.

Burrow, J.W. *Evolution and Society: A Study in Victorian Social Theory*. Cambridge: Cambridge University Press, 1966.

________. 'The Uses of Philology in Victorian Britain.' In *Ideas and Institutions of Victorian Britain: Essays in Honour of George Kitson Clark*, ed. Robert Robson, 180-204. London: G. Bell & Sons, Ltd., 1967.

Cantor, G.N. 'The Edinburgh Phrenology Debate: 1803-1828.' *Annals of Science* 32 (1975): 195-218.

Carneiro, Robert L. 'Classical Evolution.' In *Main Currents in Cultural Anthropology*, ed. R. Naroll and F. Naroll, 57-122. New York: Appleton-Century-Crofts, 1973.

Carpenter, Edmund S. 'The Role of Archaeology in the 19th Controversy between Developmentalism and Degeneration,' *Pennsylvania Archaeologist* 20, no. 1-2 (1950): 5-18.

Carter, Sarah. 'The Missionaries' Indian: The Publications of John McDougall, John Maclean and Egerton Ryerson Young.' *Prairie Forum* 9, no. 1 (1984): 27-44.

________. *Lost Harvests: Prairie Indian Reserve Farmers and Government Policy*. Montreal & Kingston: McGill-Queen's University Press, 1990.

Catlett, J. Stephen, ed. *A New Guide to the Collections in the Library of the American Philosophical Society*. Philadelphia: American Philosophical Society, 1987.

Chadwick, Owen. *The Victorian Church*. 2 vols. London: Adam & Charles Black, 1966, 1970.

Chalmers, William. *George Mercer Dawson: Geologist, Scientist, Explorer*. Montreal: XYZ Publishing, 2000.

Chamberlin, J. Edward and Sander L. Gilman, ed. *Degeneration: The Dark Side of Progress*. New York: Columbia University Press, 1985.

Chippindale, C. 'Invention of the Words for the Idea of Prehistory.' *Proceedings of the Prehistoric Society* 54 (1988): 304-14.

Christie, Nancy J. '"Pioneering for a Civilized World": Griffith Taylor and the Ecology of Geography.' In *Dominions Apart: Reflections on the Culture of Science and Technology in Canada and Australia 1850-1945*, ed. Roy MacLeod and Richard Jarrell, 103-54. Toronto, Scienta Press, 1994.

Clermont, Norman and Philip E.L. Smith. 'Prehistoric, Prehistory, Prehistorian...Who Invented the Terms?' *Antiquity* 64, no. 242 (1990): 97-102.

Clifford, James. 'On Ethnographic Allegory.' In *Writing Culture: The Poetics and Politics of Ethnography*, ed. James Clifford and George E. Marcus, 98-121. Berkeley: University of California Press, 1986.

Colbert, Edwin H. *William Diller Matthew, Paleontologist: The Splendid Drama Observed*. New York: Columbia University Press, 1992.

Cole, Douglas. 'The Origins of Canadian Anthropology, 1850-1910.' *Journal of Canadian Studies* 8, no. 1 (1973): 33-45.

________. *Captured Heritage: The Scramble for Northwest Coast Artifacts*. Vancouver: University of British Columbia Press, 1985.

________. 'Anthropological Exploration in the Great Northwest, 1778-1889 and After.' In *Encounters with a Distant Land: Exploration and the Great Northwest*, ed. Carlos A. Schwantes, 149-64. Moscow: University of Idaho Press, 1994.

________. *Franz Boas: The Early Years, 1858-1906*. Vancouver: Douglas & McIntyre, 1999.

________. 'The Invented Indian/The Imagined Emily.' *BC Studies* no. 125/126 (Spring/Summer 2000): 147-62.

Cole, Douglas and Alex Long. 'The Boasian Anthropological Survey Tradition: The Role of Franz Boas in North American Anthropological Surveys.' In *Surveying the Record: North American Scientific Exploration to 1930*, ed. Edward C. Carter II, 225-249. Philadelphia: American Philosophical Society, 1999.

Cole, Douglas and Ira Chaikin. *An Iron Hand upon the People: The Law against the Potlach on the Northwest Coast*. Vancouver: Douglas & McIntyre, 1990.

Coleman, Michael C. *Presbyterian Missionary Attitudes Toward American Indians, 1837-1893*. Jackson: University Press of Mississippi, 1985.

Collins, Henry B. and William E. Taylor, Jr. 'Diamond Jenness (1886-1969).' *Arctic* 23, no. 2 (1970): 71-81.

Collini, Stefan, Donald Winch and John Burrow. *That Noble Science of Politics: A Study in Nineteenth-Century Intellectual History*. Cambridge: Cambridge University Press, 1983.

Connolly, John. 'Archaeology in Nova Scotia and New Brunswick Between 1863 and 1914 and its Relationship to the Development of North American Archaeology.' *Man in the Northeast* 13 (1977): 3-34.

Cooter, Roger. 'Phrenology: The Provocation of Progress.' *History of Science* 14 (1976): 211-34.

________. *The Cultural Meaning of Popular Science: Phrenology and the Organization of Consent in Nineteenth-Century Britain*. Cambridge: Cambridge University Press, 1984.

Corbey, Raymond. 'Ethnographic Showcases, 1870-1930.' *Cultural Anthropology* 8, no. 3 (1993): 338-69.

Cornell, John F. 'From Creation to Evolution: Sir William Dawson and the Idea of Design in the Nineteenth Century.' *Journal of the History of Biology* 16, no. 1 (1983): 137-70.

Daniel, Glyn. *The Three Ages: An Essay on Archaeological Method*. Cambridge: Cambridge University Press, 1943.

________. *The Origins and Growth of Archaeology*. Harmondsworth: Penguin, 1967.

Daniel, Glyn, ed. *Towards a History of Archaeology*. London: Thames and Hudson, 1981.

Daniel, Glyn and Colin Renfrew. *The Idea of Prehistory*. 2nd ed. Edinburgh: Edinburgh University Press, 1988 [1962].

Darnell, Regna. 'Franz Boas and the Development of Physical Anthropology in North America.' *Canadian Journal of Anthropology* 3, no. 1 (1982): 101-12

________. *Daniel Garrison Brinton: The "Fearless Critic" of Philadelphia*. Philadelphia: University of Pennsylvania Publications in Anthropology no. 3, 1988.

________. *Edward Sapir: Linguist, Anthropologist, Humanist*. Berkeley: University of California Press, 1990.

________. *And Along Came Boas: Continuity and Revolution in Americanist Anthropology*. Amsterdam & Philadelphia: John Benjamins Publishing Company, 1999.

________. 'The Pivotal Role of the Northwest Coast in the History of Americanist Anthropology.' *BC Studies* no. 125/126 (Spring/Summer 2000): 33-52.

________. *Invisible Genealogies: A History of Americanist Anthropology*. Lincoln: University of Nebraska Press, 2001.

Davies, John D. *Phrenology, Fad and Science: A 19th-Century American Crusade*. New Haven: Yale University Press, 1985.

Davies, John R. *The Great Exhibition*. Stroud, Gloucestershire: Sutton Publishing Limited, 1999.

Dawson, Hugh J. 'E.B. Tylor's Theory of Survivals and Veblen's Social Criticism.' *Journal of the History of Ideas* 54, no. 3 (1993): 489-504.

de Laguna, Frederica. 'Diamond Jenness, C.C. 1886-1969.' *American Anthropologist* 73, no. 1 (1971): 248-54.

de Rooy, Piet. 'Of Monkeys, Blacks, and Proles: Ernst Haeckel's Theory of Recapitulation.' In *Imperial Monkey Business: Racial Supremacy in Social Darwinist Theory and Colonial Practice*, ed. Jan Breman, 7-34. Amsterdam: Vu University Press, 1990.

Desmond, Adrian. *Archetypes and Ancestors: Palaeontology in Victorian London, 1850-1875*. London: Blond & Briggs, 1982.

________. *Huxley*. London: Penguin Books, 1998.

Desmond, Adrian and James Moore. *Darwin*. New York: W.W. Norton & Company, 1991.

Dippie, Brian. *The Vanishing American: White Attitudes and U.S. Indian Policy*. Middletown, CN: Wesleyan University Press, 1982.

Donn, Jeff. 'DNA Tests Dispute Evolutionary Link Between Neanderthals and Humans.' *Edmonton Journal*, 29 March 2000, A5.

Douaud, Patrick C. 'Heterosis and Hybrid Ethnicity.' *Anthropos* 82 (1987): 215-16.

Druian, B. Raymond. 'The Cephalic Index: The History of an Idea in Physical Anthropology.' *Northwest Anthropological Research Notes* 10, no. 2 (1976): 173-84.

Edwards, Elizabeth. 'Comment. Jenness and Malinowski: Fieldwork and Photographs.' *Journal of the Anthropological Society of Oxford* 23, no. 1 (1992): 89-91.

Eiseley, Loren. *Darwin's Century: Evolution and the Men Who Discovered It*. New York: Doubleday Anchor Books, 1958.

Eisenstadt, S.N. 'Functional Analysis in Anthropology and Sociology: An Interpretative Essay.' *Annual Review of Anthropology* 19 (1990): 243-260.

Ellingson, Ter. *The Myth of the Noble Savage*. Berkeley: University of California Press, 2001.

Erickson, Paul A. 'Phrenology and Physical Anthropology: The George Combe Collection.' *Current Anthropology* 18, no. 1 (1977): 92-93.

Erickson, Paul A., with Liam D. Murphy. *A History of Anthropological Theory*. Peterborough, ON: broadview press, 1998.

Eves, Richard. 'Going Troppo: Images of White Savagery, Degeneration and Race in Turn-of-the Century Colonial Fictions of the Pacific.' *History and Anthropology* 11, no. 2-3 (1999): 351-85.

Fabian, Johannes. *Time and the Other: How Anthropology Makes its Object*. New York: Columbia University Press, 1983.

________. *Time and the Work of Anthropology*. Chur, Switzerland: Harwood Academic Publishers, 1991.

Fagin, Nancy L. 'Closed Collections and Open Appeals: The Two Anthropological Exhibits at the Chicago World's Columbian Exposition of 1893.' *Curator* 27, no. 4 (1984): 249-64.

Fallis, Laurence S. 'The Idea of Progress in the Province of Canada: A Study in the History of Ideas.' In *The Shield of Achilles: Aspects of Canada in the Victorian Age*, ed. W.L. Morton, 169-83. Toronto: McClelland & Stewart, 1968.

Fenton, William N. 'Sapir as Museologist and Research Director, 1910-1925.' *Studies in the History of the Language Sciences* 41 (1986): 215-40.

________. 'Hale, Horation Emmons.' *Dictionary of Canadian Biography*. Toronto: University of Toronto Press, 1990. Vol. 12: 400-3

Firth, Raymond. 'Contemporary British Social Anthropology.' *American Anthropologist* 53, no. 4 (1951): 474-89.

Fisher, Robin. *Contact and Conflict: Indian-European Relations in British Columbia, 1774-1890*. 2nd ed. Vancouver: University of British Columbia Press, 1992 [1977].

Francis, Daniel. *The Imaginary Indian: The Image of the Indian in Canadian Culture.* Vancouver: Arsenal Pulp Press, 1992.

Francis, R. Douglas. *Images of the West: Changing Perceptions of the Prairies, 1690-1960.* Saskatoon: Western Producer Prairie Books, 1989.

Francis, R. Douglas and Howard Palmer, ed. *The Prairie West: Historical Readings.* Edmonton: University of Alberta Press, 1985.

Fraser, Steven, ed. *The Bell Curve Wars: Race, Intelligence, and the Future of America.* New York: BasicBooks, 1995.

Freed, Stanley A., Ruth S. Freed, and Laila Williamson. 'Capitalist Philanthropy and Russian Revolutionaries: The Jesup North Pacific Expedition (1897-1902).' *American Anthropology* 90, no. 1 (1988): 7-24.

Freedman, J., ed. *The History of Canadian Anthropology.* Hamilton (?): Canadian Ethnological Society, 1976.

Friesen, Gerald. *The Canadian Prairies: A History.* Toronto: University of Toronto Press, 1984.

Gambier, Dominique. 'Fossil Hominids From the Early Upper Palaeolithic (Aurignacian) of France.' In *The Human Revolution: Behavioural and Biological Perspectives on the Origins of Modern Humans*, ed. Paul Mellars and Chris Stringer, 194-211. Edinburgh: Edinburgh University Press, 1989.

Gauvreau, Michael. *The Evangelical Century: College and Creed in English Canada from the Great Revival to the Great Depression.* Montreal & Kingston: McGill-Queen's University Press, 1991.

Gellner, Ernest. *Plough, Sword and Book: The Structure of Human History.* Chicago: University of Chicago Press, 1988.

Gillispie, Charles C. *Genesis and Geology: A Study in the Relations of Scientific Thought, Natural Theology, and Social Opinion in Great Britain, 1790-1850.* Cambridge: Harvard University Press, 1996 [1951].

Gillespie, Neil. 'The Duke of Argyll, Evolutionary Anthropology, and the Art of Scientific Controversy.' *Isis* 68, no. 241 (1977): 40-54.

Goldie, Terry. *Fear and Temptation: The Image of the Indigene in Canadian, Australian, and New Zealand Literatures*. Montreal & Kingston: McGill-Queen's University Press, 1989.

Gould, Stephen Jay. *Ontogeny and Phylogeny*. Cambridge, MA: The Belknap Press of Harvard University Press, 1977.

________. *The Mismeasure of Man*. Rev. ed. New York: W.W. Norton & Company, 1996 [1981].

Grant, John Webster. *Moon of Wintertime: Missionaries and the Indians of Canada in Encounter since 1534*. Toronto: University of Toronto Press, 1984.

Gräslund, Bo. *The Birth of Prehistoric Chronology: Dating Methods and Dating Systems in Nineteenth-Century Scandinavian Archaeology*. Cambridge: Cambridge University Press, 1987.

Gray, Edward G. *New World Babel: Languages and Nations in Early America*. Princeton: Princeton University Press, 1999.

Grayson, Donald K. *The Establishment of Human Antiquity*. New York: Academic Press, 1983.

Gruber, Jacob W. 'Horatio Hale and the Development of American Anthropology,' *Proceedings of the American Philosophical Society* 3, no. 1 (1967): 5-37.

________. 'Ethnographic Salvage and the Shaping of Anthropology.' *American Anthropologist* 72, no. 6 (1970): 1289-99.

Hall, Percival. 'Gallatin, Albert.' *Dictionary of American Biography* 7 (1931): 103-9.

Handler, Richard. 'Boasian Anthropology and the Critique of American Culture.' *American Quarterly* 42, no. 2 (1990): 252-73.

Harring, Sidney L. *White Man's Law: Native People in Nineteenth-Century Canadian Jurisprudence.* Toronto: University of Toronto Press, 1998.

Harris, Marvin. *The Rise of Anthropological Theory.* New York: HarperCollins Publishers, 1968.

Haycock, Ronald. *The Image of the Indian: The Canadian Indian as a Subject and a Concept in a Sampling of the Popular National Magazines Read in Canada, 1900-1970.* Waterloo: Wilfrid Laurier University Press, 1971.

Heizer, Robert F. 'The Background of Thomsen's Three-Age System.' *Technology and Culture* 3 (1962): 259-66.

Heaman, E.A. *The Inglorious Arts of Peace: Exhibitions in Canadian Society during the Nineteenth Century.* Toronto: University of Toronto Press, 1999.

Herrnstein, Richard J. and Charles Murray. *The Bell Curve: Intelligence and Class Structure in American Life.* New York: The Free Press, 1994.

Higham, C.L. *Noble, Wretched, & Redeemable: Protestant Missionaries to the Indians in Canada and the United States, 1820-1900.* Albuquerque: University of New Mexico Press, 2000.

Hoeveler, J. David, Jr. *James McCosh and the Scottish Intellectual Tradition.* Princeton: Princeton University Press, 1981.

Hoxie, Frederick E. *A Final Promise: The Campaign to Assimilate the Indians, 1860-1920.* Lincoln: University of Nebraska Press, 1984.

________, ed. *Encyclopedia of North American Indians.* Boston: Houghton Mifflin Company, 1996.

Hulse, Elizabeth, ed. *Thinking With Both Hands: Sir Daniel Wilson in the Old World and the New.* Toronto: University of Toronto Press, 1998.

Hull, David L. and Michael Ruse, ed. *The Philosophy of Biology.* Oxford: Oxford University Press, 1998.

Hyatt, Marshall. *Franz Boas—Social Activist: The Dynamics of Ethnicity*. New York: Greenwood Press, 1990.

Jacknis, Ira. 'The Ethnographic Object and the Object of Ethnology in the Early Career of Franz Boas.' In *Volksgeist as Method and Ethic: Essays on Boasian Ethnology and the German Anthropological Tradition*, ed. George Stocking, 185-214. Madison: University of Wisconsin Press, 1996.

Jahoda, Gustav. *Images of Savages: Ancient Roots of Modern Prejudice in Western Culture*. London: Routledge, 1999.

Jardine, Nicholas, J.A. Secord and E.C. Spary, ed. *Cultures of Natural History*. Cambridge: Cambridge University Press, 1996.

Jarrell, Richard. *The Cold Light of Dawn: A History of Canadian Astronomy*. Toronto: University of Toronto Press, 1988.

Jones, Greta. *Social Darwinism and English Thought: The Interaction between Biological and Social Theory*. Brighton, Sussex: Harvester Press, 1980.

Joyce, Barry Alan. *The Shaping of American Ethnography: The Wilkes Exploring Expedition, 1838-1842*. Lincoln: University of Nebraska Press, 2001.

Kehoe, Alice B. *The Land of Prehistory: A Critical History of American Archaeology*. New York: Routledge, 1998.

________. 'The Invention of Prehistory.' *Current Anthropology* 32, no. 4 (1991): 467-76.

Kelley, Jane H. and Ronald F. Williamson. 'The Positioning of Archaeology Within Anthropology: A Canadian Historical Perspective.' *American Antiquity* 61, no. 1 (1996): 5-20.

Kendall, Daythal, compiler. *A Supplement to 'A Guide to Manuscripts Relating to the American Indian in the Library of the American Philosophical Society.'* Philadelphia: American Philosophical Society, 1982.

Kennedy, Kenneth A.R. 'Race and Culture.' In *Main Currents in Cultural Anthropology*, ed. Raoul Naroll and Froda Naroll. New York: Appleton-Century-Crofts, 1973.

Killan, Gerald. 'The Canadian Institute and the Origins of the Ontario Archaeological Tradition, 1851-1884.' *Ontario Archaeology* 34 (1980): 3-16.

________. *David Boyle: From Artisan to Archaeologist.* Toronto: University of Toronto Press, 1983.

Kincheloe, Joe, Shirley R. Steinberg and Aaron D. Gresson III, ed. *Measured Lies: The Bell Curve Examined.* New York: St. Martin's Press, 1996.

Klindt-Jensen, Ole. *A History of Scandinavian Archaeology.* London: Thames and Hudson, 1975.

Knoll, Elizabeth. 'The Science of Language and the Evolution of Mind: Max Müller's Quarrel with Darwinism.' *Journal of the History of Behavioral Sciences* 22, no. 1 (1986): 3-22.

Koepping, Klaus-Peter. *Adolf Bastian and the Psychic Unity of Mankind. The Foundations of Anthropology in Nineteenth Century Germany.* St. Lucia: University of Queensland Press, 1983.

________. 'Enlightenment and Romanticism in the Work of Adolf Bastian: The Historical Roots of Anthropology in the Nineteenth Century.' In *Fieldwork and Footnotes: Studies in the History of European Anthropology*, ed. Han F. Vermeulen and Arturo Alvarez Roldán, 75-91. London: Routledge, 1995.

Kuklick, Bruce. *Puritans in Babylon: The Ancient Near East and American Intellectual Life, 1880-1930.* Princeton: Princeton University Press, 1996.

Kuklick, Henrika. 'Tribal Exemplars: Images of Political Authority in British Anthropology, 1885-1945.' In *Functionalism Historicized: Essays on British Social Anthropology*, ed. George W. Stocking, Jr., 59-82. Madison: University of Wisconsin Press, 1984.

________. *The Savage Within: The Social History of British Anthropology, 1885-1945.* Cambridge: Cambridge University Press, 1991.

________. 'Islands in the Pacific: Darwinian Biogeography and British Anthropology.' *American Ethnologist* 23, no. 3 (1996): 611-38.

Kulchyski, Peter. 'Anthropology in the Service of the State: Diamond Jenness and Canadian Indian Policy.' *Journal of Canadian Studies* 28, no. 2 (1993): 21-50.

Kuper, Adam. *The Invention of Primitive Society: Transformations of an Illusion.* London: Routledge, 1988.

________. *Anthropology and Anthropologists: The Modern British School.* 3rd ed. London: Routledge, 1996 [1973].

Landau, Misia. *Narratives of Human Evolution.* New Haven: Yale University Press, 1991.

Langham, Ian. *The Building of British Social Anthropology: W.H.R. Rivers and His Cambridge Disciples in the Development of Kinship Studies, 1898-1931.* Dordrecht: D. Reidel Publishing Company, 1981.

Larson, Edward J. *Summer for the Gods: The Scopes Trial and America's Continuing Debate Over Science and Religion.* Cambridge: Harvard University Press, 1997.

Larson, Edward J. and Larry Witham. 'Scientists Are Still Keeping the Faith.' *Nature* 386 (3 April 1997): 435-36.

Layton, Robert. *An Introduction to Theory in Anthropology.* Cambridge: Cambridge University Press, 1997.

Lebovics, Herman. 'The Uses of America in Locke's *Second Treatise of Government.*' *Journal of the History of Ideas* 47, no. 4 (1986): 567-81.

Levin, Michael, Gail Avrith and Wanda Barrett. *An Historical Sketch Showing the Contribution of Sir Daniel Wilson and Many Others to the Teaching of Anthropology at the University of Toronto.* Toronto: Department of Anthropology, 1984.

Lewin, Roger. *Bones of Contention: Controversies in the Search for Human Origins.* 2nd ed. Chicago: University of Chicago Press, 1997 [1987].

Liss, Julia E. 'Patterns of Strangeness: Franz Boas, Modernism, and the Origins of Anthropology.' In *Prehistories of the Future: The Primitivist Project and the Culture of Modernism*, ed. Elazar Barkan and Ronald Bush, 114-30. Stanford: Stanford University Press, 1995.

Livingstone, David N. 'Natural Theology and Neo-Lamarckism: The Changing Context of Nineteenth-century Geography in the United States and Great Britain.' *Annals of the Association of American Geographers* 74, no. 1 (1984): 9-28.

________. 'The Idea of Design: The Vicissitudes of a Key Concept in the Princeton Response to Darwin.' *Scottish Journal of Theology* 37, no. 3 (1984): 329-57.

________. 'Preadamites: The History of an Idea From Heresy to Orthodoxy.' *Scottish Journal of Theology* 40, no. 1 (1987): 41-66.

________. *Darwin's Forgotten Defenders: The Encounter Between Evangelical Theology and Evolutionary Thought.* Vancouver: Regent College Publishing, 1997 [1987].

Livingstone, David N. and Charles W.J. Withers, ed. *Geography and Enlightenment.* Chicago: University of Chicago Press, 1999.

Livingstone, David N, D.G. Hart and Mark A. Noll, ed. *Evangelicals and Science in Historical Perspective.* New York: Oxford University Press, 1999.

Lonergan, David. 'Hill-Tout, Charles.' *International Dictionary of Anthropologists.* New York: Garland Publishers, 1991.

Lorimer, Douglas A. 'Science and the Secularization of Victorian Images of Race.' In *Victorian Science in Context*, ed. Bernard Lightman, 212-35. Chicago: University of Chicago Press, 1997.

McCardle, Bennett. '"Heart of Heart": Daniel Wilson's Human Biology.' In *Thinking with Both Hands: Sir Daniel Wilson in the Old World and the New*, ed. Elizabeth Hulse, 101-14. Toronto: University of Toronto Press, 1999.

Mackert, Michael. 'Horatio Hale and the Great U.S. Exploring Expedition.' *Anthropological Linguistics* 36, no. 1 (1994): 1-26.

Mandelbaum, Maurice. *History, Man, and Reason: A Study in Nineteenth-Century Thought.* Baltimore: Johns Hopkins University Press, 1971.

Marshall, David B. *Secularizing the Faith: Canadian Protestant Clergy and the Crisis of Belief, 1850-1940.* Toronto: University of Toronto Press, 1992.

Marx, Leo and Bruce Mazlish, ed. *Progress: Fact or Illusion?* Ann Arbor: University of Michigan Press, 1996.

McFeat, Tom. *Three Hundred Years of Anthropology in Canada*. Halifax: Department of Anthropology, Saint Mary's University, 1980.

McKay, Marylin. 'Canadian Historical Murals 1895-1959: Material Progress, Morality and the 'Disappearance' of Native People.' *Journal of Canadian Art History* 15, no. 1 (1992):63-81.

McKillop, A. Brian. *A Disciplined Intelligence: Critical Inquiry and Canadian Thought in the Victorian Era.* Montreal: McGill-Queens University Press, 1979.

________. *Contours of Canadian Thought*. Toronto: University of Toronto Press, 1987.

________. *Matters of Mind: The University in Ontario, 1791-1951.* Toronto: University of Toronto Press, 1994.

McLaren, Angus. *Our Own Master Race: Eugenics in Canada, 1885-1945.* Toronto: University of Toronto Press, 1990.

McPherson, Bruce. *Between Two Worlds: Victorian Ambivalence About Progress.* Washington, DC: University Press of America, 1983.

Merrill, George P. *The First One Hundred Years of American Geology.* New York: Hafner Publishing Company, 1969 [1924].

Miller, R. Berkeley. 'Anthropology and Institutionalization: Frederick Starr at the University of Chicago, 1892-1923.' *Kroeber Anthropological Society Papers* 51-52 (1978): 49-60.

Mitchinson, Wendy. *The Nature of Their Bodies: Women and Their Doctors in Victorian Canada.* Toronto: University of Toronto Press, 1991.

Monkman, Leslie. *A Native Heritage: Images of the Indian in English-Canadian Literature.* Toronto: University of Toronto Press, 1981.

Moore, James. *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms With Darwin in Great Britain and America.* Cambridge: Cambridge University Press, 1979.

Moore, James, ed. *History, Humanity and Evolution: Essays for John C. Greene.* Cambridge: Cambridge University Press, 1989.

Morrell, Jack and Arnold Thackray. *Gentlemen of Science: Early Years of the British Association for the Advancement of Science.* Oxford: Clarendon Press, 1981.

Moyles, R.G. and Doug Owram. *Imperial Dreams: British Views of Canada, 1880-1914.* Toronto: University of Toronto Press, 1988.

Murdock, George Peter. 'British Social Anthropology.' *American Anthropologist* 53, no. 4 (1951): 465-73.

Murphree, Idus L. 'The Evolutionary Anthropologists: The Progress of Mankind: The Concepts of Progress and Culture in the Thought of John Lubbock, Edward B. Tylor, and Lewis H. Morgan.' *Proceedings of the American Philosophical Society* 105, no. 3 (1961): 265-300.

Murphy, Terrence and Roberto Perin, ed. *A Concise History of Christianity in Canada.* Don Mills, ON: Oxford University Press, 1996.

Murray, Stephen O. 'The Canadian "Winter" of Edward Sapir.' *Historiographia Linguistica* 8, no. 1 (1981): 63-68.

Naroll, Raoul and Froda Naroll, ed. *Main Currents in Cultural Anthropology.* New York: Appleton-Century-Crofts, 1973.

Nisbet, Robert. *Social Change and History: Aspects of the Western Theory of Development.* New York: Oxford University Press, 1969.

Nitecki, M.H., ed. *Evolutionary Progress.* Chicago: University of Chicago Press, 1988.

Noble, William C. 'One Hundred and Twenty-five Years of Archaeology in the Canadian Provinces.' Canadian Archaeological Association *Bulletin* 4 (1972): 2-78.

Nock, David. *A Victorian Missionary and Canadian Indian Policy: Cultural Synthesis vs Cultural Replacement.* Waterloo, ON: Wilfrid Laurier University Press, 1988.

Noll, Mark. 'Common Sense Traditions and American Evangelical Thought.' *American Quarterly* 37, no. 2 (1985): 216-38.

Numbers, Ronald L. *Creation by Natural Law: Laplace's Nebular Hypothesis in American Thought.* Seattle: University of Washington Press, 1977.

________. *The Creationists: The Evolution of Scientific Creationism.* Berkeley: University of California Press, 1992.

________. *Darwinism Comes to America.* Cambridge: Harvard University Press, 1998.

O'Brien, Charles F. *Sir William Dawson: A Life in Science and Religion*. Philadelphia: American Philosophical Society, 1971.

________. '*Eozoön Canadense*: "The Dawn Animal of Canada."' *Isis* 61 (1979): 206-23.

Ogilvie, Marilyn Bailey. 'Robert Chambers and the Nebular Hypothesis.' *The British Journal for the History of Science* 8, no. 30 (1975):214-32.

Oldroyd, David R. *Darwinian Impacts: An Introduction to the Darwinian Revolution*. Atlantic Highlands, NJ: Humanities Press, 1980.

Orme, Bryony. 'Twentieth-Century Prehistorians and the Idea of Ethnographic Parallels.' *Man* 9, no. 2 (1974): 199-212.

Owram, Doug. *Promise of Eden: The Canadian Expansionist Movement and the Idea of the West, 1856-1900*. Toronto: University of Toronto Press, 1992 [1980].

Pacey, D. *Frederick Philip Grove*. Toronto: Ryerson Press, 1970.

Patterson, Thomas C. *A Social History of Anthropology in the United States*. Oxford: Berg, 2001.

Pendergast, James F. and Bruce G. Trigger. *Cartier's Hochelaga and the Dawson Site*. Montreal: McGill-Queen's University Press, 1972.

Pettipas, Katherine. *Severing the Ties that Bind: Government Repression of Indigenous Religious Ceremonies on the Prairies*. Winnipeg: University of Manitoba Press, 1996.

Pick, Daniel. *Faces of Degeneration: A European Disorder, c. 1848-1918*. Cambridge: Cambridge University Press, 1989.

Pinker, Stephen. 'Survival of the Clearest.' *Nature* 404 (30 March 2000): 441-42.

Popkin, Richard H. 'Pre-Adamism in 19th Century American Thought: "Speculative Biology" and Racism.' *Philosophia* 8 (1978): 205-39.

Preston, Richard. 'Reflections on Sapir's Anthropology in Canada.' *Canadian Review of Sociology and Anthropology* 17, no. 4 (1980): 367-75.

Reader, John. *Missing Links: The Hunt for Earliest Man*. Boston: Little, Brown, 1981.

Reif, Wolf-Ernst. 'Evolutionary Theory in German Paleontology,' in *Dimensions of Darwinism*, ed. Marjorie Grene, 173-203. Cambridge: Cambridge University Press, 1983.

Rempel, Gwen. 'The Manitoba Mound Builders: The Making of an Archaeological Myth, 1857-1900.' *Manitoba History* no. 28 (Autumn 1994): 12-18.

Richards, Robert J. *The Meaning of Evolution: The Morphological Construction and Ideological Reconstruction of Darwin's Theory*. Chicago: University of Chicago Press, 1992.

Robertson, J. Charles. 'A Bacon-facing Generation: Scottish Philosophy in the Early Nineteenth Century.' *Journal of the History of Philosophy* 14, no. 1 (1976): 35-45.

Robinson, Ellen W. 'Harlan I. Smith, Boas, and the Salish: Unweaving Archaeological Hypotheses.' *Northwest Anthropological Research Notes* 10, no. 2 (1976): 185-96.

Rodden, Judith. 'The Development of the Three Age System: Archaeology's First Paradigm.' In *Towards a History of Archaeology*, ed. Glyn Daniel, 51-68. London: Thames and Hudson, 1981.

Rohner, Ronald P. and Evelyn C. 'Franz Boas and the Development of North American Ethnology and Ethnography.' In *The Ethnography of Franz Boas: Letters and Diaries of Franz Boas Written on the Northwest Coast From 1886 to 1931*, ed. Ronald P. Rohner and trans. Hedy Parker, xiii-xxx. Chicago: University of Chicago Press, 1969.

Roldán, Arturo Alvarez. 'Looking at Anthropology From a Biological Point of View: A.C. Haddon's Metaphors on Anthropology.' *History of the Human Sciences* 5, no. 4 (1992): 21-32.

Rouse, Sandra. 'Expedition and Institution: A.C. Haddon and Anthropology at Cambridge.' *Cambridge and the Torres Strait: Centenary Essays on the 1888 Anthropological Expedition*, ed. Anita Herle and Sandra Rouse, 50-75. Cambridge: Cambridge University Press, 1998.

Ruse, Michael. *Monad to Man: The Concept of Progress in Evolutionary Biology*. Cambridge: Harvard University Press, 1996.

Sanderson, Stephen K. *Social Evolutionism: A Critical History*. Cambridge, MA: Basil Blackwell, 1990.

Schaffer, Simon. 'The Nebular Hypothesis and the Science of Progress.' In *History, Humanity and Evolution: Essays for John C. Greene*, ed. James R. Moore, 131-64. Cambridge: Cambridge University Press, 1989.

Schrempp, Gregory. 'The Re-Education of Friedrich Max Müller: Intellectual Appropriation and Epistemological Antinomy in Mid-Victorian Evolutionary Thought,' *Man* 18, no. 1 (1983): 90-110.

Secord, James. 'Behind the Veil: Robert Chambers and *Vestiges*.' In *History, Humanity and Evolution: Essays for John C. Greene*, ed. James R. Moore, 165-94. Cambridge: Cambridge University Press, 1989.

________. *Victorian Sensation: The Extraordinary Publication, Reception and Secret Authorship of Vestiges of the Natural History of Creation*. Chicago: University of Chicago Press, 2000.

Shapin, Steven. 'The Politics of Observation: Cerebral Anatomy and Social Interests in the Edinburgh Phrenology Debates.' In *On the Margins of Science: The Social Construction of Rejected Knowledge*, ed. Roy Wallis, 139-78. Keele: University of Keele Press, 1979.

Shapin, Steven and Simon Schaffer. *Leviathan and the Air-Pump*. Princeton: Princeton University Publishers, 1985.

Sheets-Pyenson, Susan. *John William Dawson: Faith, Hope, and Science*. Montreal & Kingston: McGill-Queen's University Press, 1996.

'Shifting Myths.' *National Post*, 12 June 2001, A19.

Silverberg, Robert. *Mound Builders of Ancient America: The Archaeology of a Myth.* New York: Graphic Society Ltd., 1968.

Simpson, W. Douglas. 'Sir Daniel Wilson and the *Prehistoric Annals of Scotland*: A Centenary Study.' *Proceedings of the Society of Antiquaries of Scotland* 96 (1963): 1-8.

Smith, Donald. *From the Land of Shadows: The Making of Grey Owl.* Saskatoon: Western Producer Prairie Books, 1990.

Smith, Pamela and Donald Mitchell, ed. *Bringing Back the Past: Historical Perspectives on Canadian Archaeology.* Hull: Canadian Museum of Civilization, 1998.

Spadafora, David. *The Idea of Progress in Eighteenth-Century Britain.* New Haven: Yale University Press, 1990.

Spencer, Frank. *Piltdown: A Scientific Forgery.* New York: Natural History Museum Publications, 1990.

________, ed. *History of Physical Anthropology.* 2 vols. New York: Garland Publishing, 1997.

Stanton, William. *The Leopard's Spots: Scientific Attitudes Toward Race in America, 1815-59.* Chicago: University of Chicago Press, 1960.

________. *The Great United States Exploring Expedition of 1838-1842.* Berkeley: University of California Press, 1975.

Stephan, Nancy. *The Idea of Race in Science: Great Britain 1800-1960.* London: Macmillan, 1982.

Stocking, Jr., George W. *Race, Culture, and Evolution: Essays in the History of Anthropology.* Chicago: University of Chicago Press, 1982 [1968].

________. 'From Chronology to Ethnology: James Cowles Prichard and British Anthropology 1800-1850.' In *Researches in the Physical History of Man*, by James Cowles Prichard, ix-cx. Chicago: University of Chicago Press, 1973.

________. *Victorian Anthropology*. New York: The Free Press, 1987.

________. *The Ethnographer's Magic and Other Essays in the History of Anthropology*. Madison: University of Wisconsin Press, 1992.

________. *After Tylor: British Social Anthropology 1888-1951*. Madison: The University of Wisconsin Press, 1995.

________. 'Rousseau Redux, or Historical Reflections on the Ambivalence of Anthropology to the Idea of Progress.' In *Progress: Fact or Illusion?* ed. Leo Marx and Bruce Mazlish, 65-81. Ann Arbor: The University of Michigan Press, 1996.

________, ed. *The Shaping of American Anthropology, 1883-1911: A Franz Boas Reader*. New York: Basic Books, 1974.

________, ed. *Functionalism Historicized: Essays on British Social Anthropology*. Madison: University of Wisconsin Press, 1984.

________, ed. *Bones, Bodies, Behavior: Essays on Biological Anthropology*. Madison: University of Wisconsin Press, 1988.

Suttles, Wayne. 'The Ethnographic Significance of the Fort Langley Journals.' In *The Fort Langley Journals, 1827-30*, ed. Morag Maclachlan, 163-210. Vancouver: University of British Columbia Press, 1998.

Syms, E. Leigh. *Aboriginal Mounds in Southern Manitoba: An Evaluative Overview*. Parks Canada Manuscript no. 323. Ottawa: Environment Canada, 1978.

Tattersall, Ian. *The Fossil Trail*. New York: Oxford University Press, 1995.

Taylor, M. Brook. *Promoters, Patriots, and Partisans: Historiography in Nineteenth-Century English-Canada*. Toronto: University of Toronto Press, 1989.

Thomas, David Hurst. *Skull Wars: Kennewick Man, Archaeology, and the Battle for Native American Identity*. New York: Basic Books, 2000.

Titley, E. Brian. *A Narrow Vision: Duncan Campbell Scott and the Administration of Indian Affairs in Canada*. Vancouver: University of British Columbia Press, 1986.

Trautmann, Thomas R. *Lewis Henry Morgan and the Invention of Kinship*. Berkeley: University of California Press, 1987.

________. 'Whig Ethnology From Locke to Morgan.' *Journal of the Anthropological Society of Oxford* 23, no. 1 (1992): 201-18.

________. 'The Revolution in Ethnological Time.' *Man* 27, no. 2 (1992): 379-97.

Trigger, Bruce G. 'Sir Daniel Wilson: Canada's First Anthropologist.' *Anthropologica* 8, no. 1 (1966): 3-28.

________. 'Sir John William Dawson: A Faithful Anthropologist.' *Anthropologica* 8, no. 2 (1966): 351-59.

________. 'Major Concepts of Archaeology in Historical Perspective.' *Man* 3, no. 4 (1968): 527-41.

________. 'Archaeology and the Idea of Progress,' in *Time and Tradition: Essays in Archaeological Interpretation*, 54-74. Edinburgh: Edinburgh University Press, 1978.

________. 'Archaeology and the Image of the American Indian.' *American Antiquity* 45, no. 4 (1980): 662-76.

________. 'Archaeology and the Ethnographic Present.' *Anthropologica* 23, no. 1 (1981): 3-18.

________. 'American Archaeology as Native History: A Review Essay.' *William and Mary Quarterly* 40, no. 3 (1983): 413-52.

________. 'Alternative Archaeologies: Nationalist, Colonialist, Imperialist.' *Man* 19, no. 3 (1984): 355-70.

________. *Natives and Newcomers: Canada's "Heroic Age" Reconsidered.* Montreal & Kingston: McGill-Queen's University Press, 1985.

________. 'The Past as Power: Anthropology and the North American Indian.' In *Who Owns the Past?*, ed. Isabel McBryde, 11-40. Oxford: Oxford University Press, 1985.

________. 'The Historians' Indian: Native Americans in Canadian Historical Writing from Charlevoix to the Present.' *Canadian Historical Review* 67, no. 3 (1986): 315-42.

________. 'Daniel Wilson and the Scottish Enlightenment.' *Proceedings of the Antiquarian Society of Scotland* 122 (1992): 55-75.

________. *Sociocultural Evolution.* Oxford: Blackwell Publishers, 1998.

________. '*Prehistoric Man* and Daniel Wilson's Later Canadian Ethnology.' In *Thinking with Both Hands: Sir Daniel Wilson in the Old World and the New*, ed. Elizabeth Hulse, 81-100. Toronto: University of Toronto Press, 1999.

Urry, J. 'From Zoology to Ethnology: A.C. Haddon's Conversion to Anthropology,' *Canberra Anthropology* 5 (1982): 58-85.

________. *Before Social Anthropology: Essays on the History of British Anthropology.* Chur, Switzerland: Harwood Academic Publishers, 1993.

Van Keuren, David K. *'The Proper Study of Mankind': An Annotated Bibliography of Manuscript Sources on Anthropology and Archaeology in the Library of the American Philosophical Society.* Philadelphia: American Philosophical Society, 1986.

________. 'Cabinets and Culture: Victorian Anthropology and the Museum Context.' *Journal of the History of the Behavioral Sciences* 25, no. 1 (1989): 26-39.

Van Riper, A. Bowdoin. *Men Among the Mammoths: Victorian Science and the Discovery of Human Prehistory*. Chicago: University of Chicago, 1993.

Van West, John J. 'George Mercer Dawson: An Early Canadian Anthropologist.' *Anthropological Journal of Canada* 14, no. 4 (1976): 8-12.

Walden, Keith. *Becoming Modern in Toronto: The Industrial Exhibition and the Shaping of a Late Victorian Culture*. Toronto: University of Toronto Press, 1997.

Weber, Gay. 'Science and Society in Nineteenth Century Anthropology.' *History of Science* 12, no. 3 (1974): 260-83.

Wells, Rulon S. 'The Life and Growth of Language: Metaphors in Biology and Linguistics.' In *Biological Metaphor and Cladistic Classification: An Interdisciplinary Perspective*, ed. Henry M. Hoenigswald and Linda F. Wiener, 39-80. Philadelphia: University of Pennsylvania Press, 1987.

White, Hayden. *Tropics of Discourse: Essays in Cultural Criticism*. Baltimore: The Johns Hopkins University Press, 1978.

White, John Robert. 'The Stubbs Earthwork: Serpent Effigy or Simple Embankment.' *North American Archaeologist* 17, no. 3 (1996): 203-37.

Wiber, Melanie. *Erect Men Undulating Women: The Visual Imagery of Gender, 'Race' and Progress in Reconstructive Illustrations of Human Evolution*. Waterloo: Wilfrid Laurier University Press, 1998.

Wickwire, Wendy. '"The Quite Impossible Task": Douglas Cole and the Ecumenical Challenge of British Columbia's Cultural History.' *BC Studies* no. 125/126 (Spring/Summer 2000): 5-32.

Willey, Gordon R. and Jeremy A. Sabloff. *A History of American Archaeology*. 2nd ed. New York: W.H. Freeman and Company, 1980 [1974].

Williams, Vernon J. *Rethinking Race: Franz Boas and His Contemporaries*. Lexington: The University Press of Kentucky, 1996.

Winters, Christopher, ed. *International Dictionary of Anthropologists*. New York: Garland Publishing, 1991.

Winslow-Spragge, Lois. *The Life of George Mercer Dawson, 1849-1901*. Np., nd., ca. 1962.

Wokler, Robert. 'Apes and Races in the Scottish Enlightenment: Monboddo and Kames on the Nature of Man.' In *Philosophy and Science in the Scottish Enlightenment*, ed. Peter Jones, 145-68. Edinburgh: John Donald Publishers Ltd., 1988.

________. 'Anthropology and Conjectural History in the Enlightenment.' In *Inventing Human Science: Eighteenth-Century Domains*, ed. Christopher Fox, Roy Porter and Robert Wolker, 31-52. Berkeley: University of California Press, 1995.

Wolf, Eric. *Europe and the People Without History*. Berkeley: University of California Press, 1982.

Wolpoff, Milford and Rachel Caspari. *Race and Human Evolution*. New York: Simon & Schuster, 1997.

Wood, Paul B. 'The Science of Man.' In *Cultures of Natural History*, ed. N. Jardine, J.A. Secord and E.C. Spary, 197-210. Cambridge: Cambridge University Press, 1996

Worsley, Peter. 'The End of Anthropology.' *Western Canadian Journal of Anthropology* 1, no. 3 (1970): 1-9.

Wright, J.V. 'The Development of Prehistory in Canada, 1935-1985.' *American Antiquity* 50, no. 2 (1985): 421-33.

Wright, Terence. 'The Fieldwork Photographs of Jenness and Malinowski and the Beginnings of Modern Anthropology.' *Journal of the Anthropological Society of Oxford* 22, no. 1 (1991): 41-58.

________. 'Comment. Jenness and Malinowski: Fieldwork and Photographs.' *Journal of the Anthropological Society of Oxford* 24, no. 1 (1992): 91-93.

Yeo, Richard. 'An Idol of the Market-Place: Baconianism in Nineteenth Century Britain,' *History of Science* 23, no. 3 (1985): 251-98.

Young, Robert J.C. *Darwin's Metaphor: Nature's Place in Victorian Culture*. Cambridge: Cambridge University Press, 1985.

________. *Colonial Desire: Hybridity in Theory, Culture and Race*. London: Routledge, 1995.

Zaslow, Morris. *Reading the Rocks: The Story of the Geological Survey of Canada, 1842-1872*. Toronto: Macmillan, 1975.

Zeller, Suzanne. *Inventing Canada: Early Victorian Science and the Idea of a Transcontinental Nation*. Toronto: University of Toronto Press, 1987.

________. 'Environment, Culture, and the Reception of Darwin in Canada, 1859-1909.' In *Disseminating Darwinism: The Role of Place, Race, Religion, and Gender*, ed. Ronald L. Numbers and John Stenhouse, 91-122. Cambridge: Cambridge University Press, 1999.

b. Unpublished Theses and Dissertations

Avrith, Gail. 'Science at the Margins: The British Association and the Foundations of Canadian Anthropology, 1884-1910.' Unpublished Ph.D. dissertation. University of Pennsylvania, 1986.

Ballantyne, E.C. 'Creation and Design in the Thought of Sir William Dawson.' Unpublished MA thesis. University of British Columbia, 1972.

Banks, Judith Judd. 'Comparative Biographies of Two British Columbia Anthropologists: Charles Hill-Tout and James Teit.' Unpublished MA thesis. University of British Columbia, 1970.

Berman, Judith. 'The Seals' Sleeping Cave: The Interpretation of Boas' Kwakw'ala texts.' Unpublished Ph.D. dissertation. University of Pennsylvania, 1991.

Cottam, S. Barry. 'An Historical Background of the *St. Catherine's Milling and Lumber Co.* Case.' Unpublished MA thesis, University of Western Ontario, 1987.

Darnell, Regna. 'The Development of American Anthropology 1879-1920: From the Bureau of American Ethnology to Franz Boas.' Unpublished Ph.D. dissertation, University of Pennsylvania, 1969.

Dobbin, George R. 'Digging for Goldie: Alexander Goldenweiser's Contributions and His Iroquois Notes.' Unpublished B.A. thesis paper. Reed College, 1986.

Fewson, David John. 'Society in Decline: Evolutionary Theory and the Idea of Degeneration in the *Toronto Globe*, 1896-1909.' Unpublished MA thesis, Queen's University, 1998.

Fallis, Laurence. 'The Idea of Progress in the Province of Canada: 1841-1867.' Unpublished Ph.D. dissertation, University of Michigan, 1966.

McCardle, B.E. 'The Life and Anthropological Work of Daniel Wilson, (1816-1892).' Unpublished M.A. thesis, University of Toronto, 1980.

Nix, James. 'John Maclean's Mission to the Blood Indians, 1880-1889.' Unpublished MA thesis, McGill University, 1977.

Reynold, Philip G. 'Race, Nationality and Empire: Aspects of Mid-Victorian Thought, 1852-1872.' Unpublished Ph.D. dissertation, Queen's University, 1978.

Swetlitz, Marc. 'Julian Huxley, George Gaylord Simpson and the Idea of Progress in 20th-Century Evolutionary Biology.' Unpublished Ph.D. dissertation, University of Chicago, 1991.

Taylor, Robert John. 'The Darwinian Revolution: The Responses of Four Canadian Scholars.' Unpublished Ph.D. dissertation, McMaster University, 1976.

White, Pamela Margaret. 'Restructuring the Domestic Sphere—Prairie Indian Women on Reserves: Image, Ideology and State Policy, 1880-1930.' Unpublished Ph.D. dissertation, McGill University, 1987.